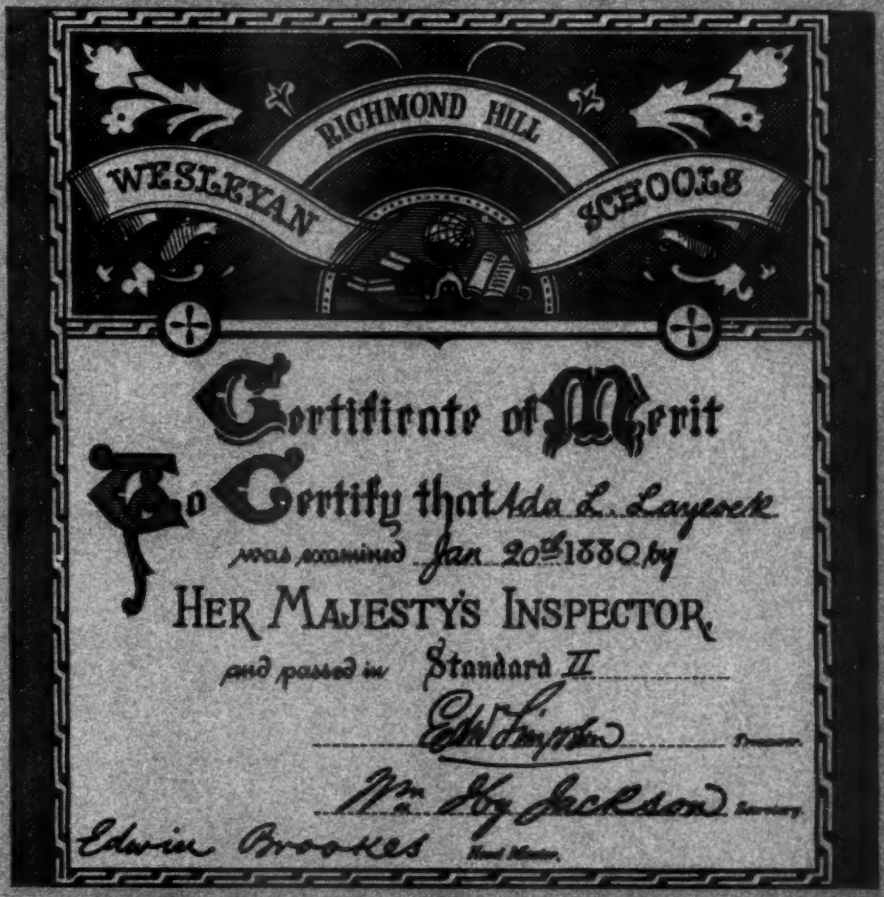
Trends in Education



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EDUCATIONAL STANDARDS
GOING COMPREHENSIVE
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Trends in Education

JUNE 1975

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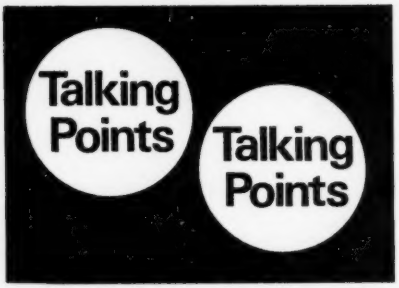

Out of school

Normally a teacher's general aim is that his pupils will extend their experience in new directions and acquire new skills. Since education began to take on a new look, as it did from about 1950 onwards, new types of experience, not easy to come by a generation previously, have been on the increase. This has meant for one thing that many more pupils in secondary schools and many fewer in primary schools are now entered for external examinations. On all sides, society counts this as a considerable gain. It has meant that fewer have been inhibited from attempting things in their earlier years at school and that more have been presented with opportunities of various types in the later stages of school life. In no direction is this trail clearer than in outdoor education—physical recreation, field-work, expeditions and local studies. Activities falling into these categories are now open to school pupils and to other young people on a scale which puts them amongst the most notable examples of contemporary curriculum development.

All through these new activities the aim has been to provide pupils with significant experiences and with life skills. The skills may be those of observing and recording, organizing and reflecting, or they may be purely physical achievements based on acquired techniques. All this has contributed to the personal development of individuals, the acquisition of self-assurance, physical independence, tolerance, self-discipline and understanding of society.

In work out of school, teacher planning, preparation, initiative and example are all important. What seems to move children to produce sometimes unexpected demonstrations of effort and involvement, even in the difficult middle years, is that adults and older adolescents are seen to care deeply about certain pursuits, experiences and areas of study. Children taken up the aery mountain or down the rushy glen respond with enthusiasm partly because the experience is novel, but still more because they welcome an initiation into adult rites and adult pleasures. The preparation, the technical skills, the physical effort, deftly and judiciously applied by the older leaders and the adult are not lost on children. These are things which stir the awkward and the apathetic, perhaps for the first time.

Out-of-school pursuits serve, of course, other equally important purposes. It will be an impoverishment of many elements in the customary curriculum if pupils are *not* taken out of school. Physical education is an obvious example; geography follows it closely, together with biological science, history and social studies of all kinds. It would be wrong to associate outdoor education solely with expeditions and residence away from school. The time-honoured nature walk, the cultivation of a school garden, all exploitation for learning of the school's grounds or its immediate neighbourhood, whether urban or rural, can have their place. The extent to which field-work has become a feature of the curriculum in geographical studies was clearly shown in Education Survey No. 19* where it is recorded that in the sample of junior schools studied only 11 per cent did no outdoor work of any account, and in the secondary schools

* *School Geography in the Changing Curriculum*, Department of Education and Science (HMSO) 1974.

studied only 8 per cent fell into this category. Fifty-seven per cent of the secondary schools in the sample provided residential field-work courses for their geography students.

What has made possible this more adventurous and far-flung out-of-school learning? One needs to look in two directions. First to the growth of conviction about its value in many subjects of the curriculum, to the development of outdoor skills, the initiation of the Duke of Edinburgh's Award and to the way in which broadcasting and the press (TV, perhaps, in particular) have promoted an interest in activities once confined to the more privileged. The second factor has been the provision of facilities, by private enterprise in part—but, more significantly for education—by the schools themselves, the LEAs and organizations such as the Youth Hostels Association, the Field Studies Council, the Sail Training Association, the new Young Explorers Trust and many others. In 1951 Derbyshire provided one of the first LEA residential Outdoor Centres; it is now estimated that there are more than 375 centres in England and Wales which provide for field studies and outdoor pursuits —about half are LEA centres. Some accommodate over a hundred students and others as few as twelve. Sites and equipment for camping may be a part of these arrangements. The arrival on the market of the minibus was an all-important contributory factor.

What seem to be the problems and points for concern in the present situation? The conservation and respect due to those areas especially favourable to out-of-school education is one. The safety of the young is always another; and the employment of people, suitably trained and experienced, is related to it. The staffing and maintenance of centres in a period of economic recession is a serious issue today. Finally, it has always to be asked whether more may not mean worse. There is no reason why it should, but no reason either for neglecting to submit all new developments to a critical scrutiny. The objectives and styles of approach adopted at the many residential centres vary greatly. In developing recreational skills and pursuits some may neglect other educational aspects of the use of the environment. Out-of-school activity ought always to have multiple aims. It should be a challenge to learning and adventure with aesthetic and intellectual as well as physical satisfaction implicit in the response evoked.

On being a bit hard on software

One of our readers pointed out to us the other day that the punched cards that were part of our cover design for the October issue of TRENDS *could not actually be used in drawing up school timetables.* We are naturally sorry if anyone was misled, but we did genuinely see the use of punched cards in the cover design as a kind of artistic licence—which, as you know, is only poetic licence minus the need to spell it out. Rightly or wrongly, we reasoned that those of you who knew anything about the subject would know enough to know that our punched cards could not be used for such a purpose. Those of you who did not know this would, we thought, have too little knowledge even to begin.

However, like Oliver Cromwell addressing the General Assembly of the Church of Scotland, our reader beseeches us to think it possible that we might be mistaken. Well, then, perhaps we are—but if any of you within the last eight months or so *did* try to use cards like ours to draw up school timetables, perhaps you'd be kind enough to tell us what the computer actually did or, what is probably more to the point, said. Since we haven't so far heard from you, we can only conclude that what it did say was, quite literally, unprintable.

Educational Standards Today

Educational standards are much in debate. In the first four articles in this issue, the authors discuss the nature of standards, the monitoring of standards, standards of school mathematics, and the standards expected by employers.

Trends 1975/2

Standards for whom?

HARRY JUDGE

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'Standard' is a dangerous and difficult word to think about, and one that is impossible to define. The origins of its current use are lost in the worlds of warfare and of trade. The king's standard was the rallying point of an army, the centre of authority and command, the symbol of loyalty and effective action. Standards of measurement were, in developed societies, fixed and universal. Fraudulent or even careless departure from them was punishable. Small wonder, then, that in a world of uncomfortable change, we should look back to a golden standard age of economic and military power, nostalgically recreating an ordered social and cultural world. The defence, or the maintenance of standards, or most recently the restoration of standards, has become a rallying cry for many who dislike the present drift of events and attitudes.

Educational problems, or if it comes to that educational slogans, do not belong to a separate and private world. There is an obvious link between on the one hand attacks on pornography, delinquency, abortion, divorce, bad manners, haphazard dress, promiscuousness, strikes, tax evasion, drugs, football hooliganism and, on the other, lamentations over the decline of standards in the educational system. Indeed, the latter is sometimes invoked as the cause of the former—with the implication that open-plan classrooms and the disuse of corporal punishment are the real causes of a rise in the crime rate and a fall in the growth rate. It is no coincidence that the rhetoric of the Festival of Light, a plea for the restoration of the gold standard, and an appeal for a return to the three Rs, should all be making themselves heard at the same time.

Two camps

How should teachers and educationists react to these circumstances? The first, and most obviously neglected, requirement is to avoid polemics and exaggeration. There is a very plain danger at the moment that two camps, rallying under opposed and luridly painted standards, will form. On one side of the field will congregate those who demand a return to the old ways. Their challenge is that national standards have fallen disastrously, that we have become cognitively as well as morally soft. Primary schools have abandoned structure for spontaneity, reading for projects, multiplication tables for sand trays. The disappearance of the 11 plus has robbed those schools of any objective at which to aim, and the sense of work and pressure collapses. In the secondary sector disciplined subjects yield to ill-defined integrated courses, crisply organized streams are replaced by shapeless classes of mixed abilities, uniform is replaced by jeans (or worse). Romantic egalitarians seek to overturn the examination system, the concept of failure (and, therefore, of success) is eliminated, unstandardized school-based assessments replace the clear results awarded by examining boards linked with universities. Truancy becomes uncontrollable, teachers are attacked or go on strike, specialization in the sixth form collapses. The evils of such a system are magnified when its products are finally corrupted by colleges of education, which practise sociology and perpetuate the very illiteracy they should eliminate.

The opposing camp is no less dogmatic and brash. Its inhabitants recall the iniquities of a divisive system, splitting children into grammar and modern schools at the age of eleven. They attack any learning by rote, make sport of the irrelevance to many children of much of the traditional curriculum, look back with horror on a system of payment by results, linked to inspection and a rigid application of standards (numbered one to seven). It is profoundly dangerous for the educational system when these two sets of exaggerations are taken seriously. It would be disastrous if they, and some of the values which underpin them, became identified with two systems of schooling (one called selective and the other called comprehensive) and if those two systems are linked with the opposing ideologies of two parliamentary parties. That is a rapid road to fevered and high-tempered debate, followed by a real (and not imagined) educational collapse.

A long, cool look

So a sense of proportion is the first requirement. We are living through a set of major and ill-prepared educational changes, and any standards of comparison are notoriously difficult to identify. There was an educational system based upon the premise that a basic elementary education should be provided for all, and that the few who flourished in it should be carried forward into

a high-powered secondary stage. That elementary education had —quite literally and by name—its own 'standards', and not all progressed through all of them. Age was less important than recorded achievement, and that achievement could be assessed with some precision by measuring a small number of identifiable skills. The scholarship examination, which became the 11 plus, set the final standard and sealed the achievement of pupil, teacher and school. The grammar school received only successes, and to them unfolded a high-grade curriculum, taught by graduate teachers, and validated by national examinations for 16- and 18-year-olds. The high standards—and they deserve to be admired and emulated—were for the few.

Universal secondary education—compared with which the comprehensive debate is of trivial importance—has changed all that, and we are required to fashion new standards of institutional success and personal achievement. This is much more difficult than ever it was before, since we are collectively unclear about what it is we wish schools to teach and to be. So a discussion of standards should start with a recognition of this problem, the avoidance of polemic, the cultivation of a sense of proportion. It should advance from that modest base in three directions, which might be summarily identified as 'redefinition', 'research' and 'assessment'.

Redefinition must be accomplished by a difficult and continuing process of argument about what precisely we are trying to achieve in the teaching of primary and secondary school children. I use the apparently narrow word 'teaching' in order to give somewhat sharper focus to the debate about the kinds of standards with which teachers as professionals should be concerned. It may well be true—although it is wildly premature to pretend that we yet know—that schooling has a relatively slight influence upon the children immersed in it. Equally, it may be true that the unintended effects of schooling are greater than the intended effects. It might even be true that different methods and philosophies of school organization will change social attitudes and structures. Teachers as professionals should not be ignorant of, and must be concerned with, such issues—but that should not now prevent them and others from attempting to define what children, at a given age or stage of development (and that elementary distinction may prove to be important), might need to know and be given the capacity to do.

The curriculum

Yet we seem frightened of asking this question, in any but the loosest terms, even about children of primary school age. I am not, of course, suggesting that any definition of standards for such children could or should be comprehensive and exclusive, and I shall wish to return briefly to the questions of measurement and assessment. The long shadow of the 11 plus has lain

for too long across the English primary school, but it is now being removed. Primary school teachers, and those who speak for them, must become much more explicit about what they want their children to achieve—and, more particularly, to achieve in terms of such fashionable competences as the ability to read, to communicate, to calculate, to master one or more languages. There is no reason why such definitions should be exclusive. Creativity, sociability, compassion may be values of greater and more universal force: teachers may properly wish to develop them, but should not deceive themselves into thinking that competence in some utilitarian sense is an inhuman value. Nobody supposes—to take an analogy which may not be fanciful—that a university is concerned only or even primarily with the rigorous teaching of subjects. The traditional view, in this country at least, is quite different from that—which is not to say that universities would wish or expect to lower their academic standards (in some strict sense of that term) simply because they are also, or should be, centres both of conviviality and of high culture.

Primary schools, it should therefore be argued, might now feel encouraged both to define, in terms of teaching and learning, the basic standards they wish to achieve for all children, and to refuse to accept that definition as a total statement of their purposes. There need be within primary schools no conflict in doing both these things although at present—for reasons at once historical and irrelevant—many teachers want to avoid even discussion of standards. But the problem in secondary schools is very much more teasing than this, and much less neatly separable from matters of social policy. Problems of defining the necessary minimum content of the curriculum are here much less tractable.

It is assumed, and I think correctly, that the path of a normal educational programme is from the general to the specific, from wide study to deep study, from the common curriculum towards specialization. This proposition can very easily be made to look absurd if it is interpreted with exaggerated precision, or related too precisely to the chronological age of pupils. It is not, I presume, a law of nature that an 11-year-old in July should properly be studying the same as all other 11-year-olds, with one teacher working in the context of an integrated day, but that in October he must be segregated into a group of pupils of comparable ability, and taught a set of subjects (called geography, or mathematics) taught by men and women devoting their whole lives to this very precisely defined activity. But it does seem to be a rule of commonsense and common procedure that 7-year-olds may work on a reasonably common educational programme, whereas 17-year-olds should not. Most of us would be affronted by the suggestion that some 7-year-olds 'need' to learn Greek, while some of their contemporaries in the same school do not need even to read; few of us would raise an eye-

brow at the unsurprising news that, ten years later, some of that same generation are devoting all their official educational time to the study of dead languages, while others occupy themselves with learning about accountancy (or nothing at all).

This is simply to argue that the debate about 'standards' in secondary schools will remain empty and meaningless until we determine questions about the curriculum: what should we be teaching, to whom precisely, and why? And these are questions of organization, of curriculum planning, of streaming, of public examinations—and on such matters we have neither national nor local policies. It may very well be true, to take one current and difficult example, that standards in French in some, or even in many, schools are falling. When a relatively small and traditional teaching force applied virtually the whole of its energies to instructing the most able 20 per cent of the population, the students so favoured might have been expected to achieve high standards, and they did. But what kind of calculation would illuminate questions about standards in teaching French now? Is it true that more are learning a foreign language, and in this sense a higher standard is being achieved on a national scale? And if this is true, is it at the expense of the previously high standards of a minority? Let me stress again that such puzzles need have no direct relationship to questions of the general organization of the school system: the problem is one of curriculum, not selection versus comprehension. This is a problem to which secondary school teachers need to apply themselves, and it raises all the difficult questions of appropriateness, individual need and 'relevance'. If we exaggerate the notion of the common curriculum (say, for all pupils to the age of 16) we create one set of problems about standards; if we permit a highly diversified, and perhaps stratified, curriculum we must develop a much more complex notion than we now have of what the relevant standards might be. Meanwhile, we would as teachers be singularly rash to countenance any observable decline in the standards of achievement of any identifiable group, and especially perhaps of the most able. If teachers in comprehensive schools are less than totally alert to this, the division of the argument into two opposing camps (to the dangers of which I have already referred) simply becomes inevitable. To maintain such standards for a minority may be only an interim measure, but it is one that is absolutely necessary.

Research and assessment

If a sense of proportion is the first requirement in this discussion, and a sharper definition of curriculum objectives the second, then the third must be a greater emphasis upon the importance of enquiry and research. A plea for research is sometimes no more than an evasive excuse for ignorance or inactivity, but I do not believe that it is so in this case. It is idle to argue about standards

unless we know the facts to which they might be applied. Yet we remain painfully ignorant about precisely what is happening in schools, or even of what procedures might be instructionally effective. New curricula are introduced, new methods promoted, new forms of organization sponsored—but rarely with any proper research or controls. Meanwhile, generalizations about the effectiveness or destructiveness of such innovations are formulated. We need to know very much more about what schools are already achieving before we generalize about rising or falling standards, or about the factors which influence such real or imagined changes.

From a wide programme of research it should be practicable to derive standards and methods of assessment. The notion of assessment, in the context of maintaining an elaborate but loosely articulated national system of education, should no longer be resisted. Its past associations still provoke hostile reactions. Assessment of standards in the nineteenth century was linked with the payment of teachers by results, with the unimaginative limitations of a popular or elementary curriculum, with the depressed status of the teaching profession, with the paternalism of Her Majesty's Inspectorate. In this century, it has been associated particularly with an examination for 11-year-olds that was used, and is still being used, for the allocation of young pupils to distinctive types of curriculum, often institutionalized in schools of superior and inferior status.

The removal of the 11 plus may be a necessary preliminary to the raising of educational standards for the majority, but it cannot secure that improvement and may even in some paradoxical sense inhibit it. Its removal may liberalize primary schools, while also leading to an undervaluing of achievement in the traditional senses of that term. If that happens, the work of secondary schools will collapse, for the necessary grounding which has traditionally been part of primary or elementary education can no longer be taken for granted. Such a catastrophe should be even more alarming to progressivists than to traditionalists: mixed ability teaching certainly cannot succeed unless the pupils can read their own work-cards. Teachers may conquer their deeply rooted dislike of a national system of assessment if they see in it a guarantee of their own freedom, rather than an insult to their professional competence or a violence done to their pupils. What matters most in assessment are the motives for attempting it and the methods of applying it.

The teacher's freedom

It is a truism that, in primary and secondary schools alike, English teachers enjoy a peculiar degree of freedom in determining their curriculum and making their own professional decisions. That freedom cannot be taken for granted, and its survival depends upon a foundation of public confidence in the work of the schools.

That confidence will be withdrawn, and rightly so, unless schools are prepared to demonstrate that they can achieve what I have described as minimal standards of competence. These have, in the past, been in some sense guaranteed by a selective pre-secondary examination and the privileged pressures of grammar schools. Schools which demonstrate their achievements will preserve a freedom to develop and experiment which would otherwise be eroded by an increasingly neurotic public opinion. Assessment of standards—nationally, and regionally, and school by school—both by objective testing and by the work of a trusted Inspectorate—should become a central theme of the educational debate.

The themes of this article have been that much of the present talk about standards is shallow and emotive, that comparisons between a traditional system and the arrangements we are haphazardly creating cannot legitimately be made, that we desperately need more information about what the educational system is in fact doing and that as teachers we need to overcome a historically legitimate but now irrelevant opposition to the notion of the assessment of standards. The professional freedom of teachers, on which the vigorous life of the schools depends may well be dependent upon this apparently reactionary innovation. If the basic standards of the school population—at, say, the ages of 8, 10, 12 and 14—can be publicly validated and openly discussed, teachers will be free to develop their own work as they think best for their pupils. If there is no consensus about those standards, and no yardstick of normal progression from one age or stage to the next, then scepticism about standards will grow, with potentially serious results for the morale of schools. Nor is there any conflict between standards of competence and standards of excellence, for teachers will be permitted to do interesting things—that is to say, to do their best work—only for as long as they are seen, in some very much more limited sense, to deliver the goods for which a half-educated society thinks it is paying.

Monitoring pupils' performance

B. W. KAY

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In recent years there has been a growing interest in the assessment of pupils' performance in school, related in the minds of many people to some anxiety about standards. This interest and concern is felt not only by teachers but by politicians and administrators, employers and the general public.

It would be wrong to suppose that teacher concern comes only from traditionalists. Many teachers engaged in the development of new approaches to established subjects in the curriculum or in introducing new subjects or interdisciplinary forms of study are asking how far the traditional school assessment pattern—not to mention the external examination pattern—is adequate to their needs. When new curriculum approaches are carried out within new patterns of school organization such as vertical or mixed-ability grouping, then an urgent need for sound and reliable forms of assessment and recording is manifest. The knowledge and memory-based forms of assessment which are still the most prevalent seem inadequate to match the range of objectives in many new courses, and some of those new objectives seem resistant to quantification—or, indeed, to the precise definition that must precede attempts either to identify or quantify.

Administrators and politicians, both at local and national level, are also interested in assessment, particularly as a monitoring instrument. They have a responsibility to the public for the effectiveness of the system; and parents and employers are not slow to express their subjective views on that effectiveness. Some of these views may rest on a very narrow basis of fact and (as the Bullock Report has recently suggested) comparisons with the standards of the past may be looking back to a golden age which never existed. In order to decide whether criticisms—or praise—are justified, the administrator needs objective evidence.

Here it would be well to distinguish between assessment and evaluation. Evaluation may be applied to systems or processes; one can attempt an evaluation of a new syllabus or a new curriculum, of a school as a whole or a section of the educational system in general. Assessment is of the performance of an individual. It may be carried out in order to make decisions about the individual assessed—and such is the greater part of the assessment carried out in schools and in public examinations—but it may also be carried out on a sampling basis as a tool

of evaluation in order to make decisions about a system. The forms of assessment in which the teacher is most interested will not necessarily be the same as those of the administrator. The teacher ideally is concerned with the day-to-day assessment procedures which will modify his teaching programme constantly in the interests of individual pupils. The administrator, like the captain of a super-tanker, has a system which responds only very slowly to any change of direction, and so needs a more generalized monitoring device that ignores the small troughs and peaks and gives information about longer-term trends.

External assessment

There is nothing new about the application of assessment to monitoring in education—it has been carried out in the successive reading surveys instituted by the DES from 1948 onwards. The Bullock Committee, while recognizing the deficiencies of these surveys, comes out firmly on the side of monitoring.

We are in no doubt of the importance of monitoring standards of achievement in literacy, and of doing so to as sophisticated an extent as possible.

A pamphlet published by the Society of Education Officers, *Management in the Education Service*,* contains a chapter on 'Assessment of Achievement'. This stresses the dangers inherent in an externally applied programme of assessment, and in particular the distorting effect of using too limited a range of 'indicators'. It reminds the reader that a monitoring process should be seen solely as a 'tool of management' and not as an end in itself; and moreover that the evidence it supplies needs to be appropriate to different levels of management and to be professionally interpreted at each level. But while emphasizing those reservations, the author of the chapter strongly urges the case for a monitoring system to be applied by local education authorities.

Alongside the interest in assessment there is also, particularly on the teacher's part, a deep-rooted suspicion of forms of assessment imposed from the outside. He has a love/hate relationship with the external examiner, since he welcomes an external, unbiased and authoritative judgement on his pupils, but he chafes at the restrictive effects on his teaching of external syllabus demands. There are moreover, he believes, many aspects of performance which the teacher can observe but from which the examiner is totally excluded. He has in general welcomed a change of emphasis in the examination structure which provides a greater measure of internal freedom in both syllabus and assessment, while preserving the authority of an external examining agency.

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* To be published in book form by Routledge and Kegan Paul later this year.

If the external examinations at 16 plus and 18 plus induce mixed feelings in the teachers, the 11 plus examination, now largely disappearing from the educational scene, has, not wholly deservedly, incurred the odium of both teachers and general public. This is mainly because the distaste on political, social, and less commonly educational grounds for selection at 11 plus has communicated itself to the means used to perform that selection. In addition to its borrowed odium, the 11 plus examination has fallen into further disfavour because of the narrow spectrum of attainment skills assessed. Provided that the tests could be shown to be reliable indicators of the pupils' overall attainment, this narrowness would not have mattered so much, had they not unnecessarily imposed a limitation on the range of teaching adopted in many primary schools. In discussing the place of assessment, the author of the final chapter of *Management in the Education Service* quotes a comment by Matthew Arnold as HMI in 1876, fourteen years after the introduction of payment by results:

> The great fault of Payment by Results is that it fosters teaching by rote. In the game of mechanical contrivances the teacher will beat us in the end: by ingenious preparation to get children through the examination without their really knowing how to read, write or cypher.

Criticisms of the 11 plus examinations could be found in similar, though generally not so outspoken, words.

Lines of development

Any attempt to monitor performance must be based on some 'model'. It would be possible to adopt the model which is represented in the school timetable. That is to say, in the secondary school, a model which divides the pupil's curriculum into a number of more or less separate units or subjects and divides the week into sections of time of varying lengths to match these. This is basically the model on which both the school's internal assessment and the external examination assessment is based. The primary school one is not essentially different. There are certain disadvantages in using this model for a monitoring exercise—at least for a monitoring exercise which sets out to evaluate a curriculum rather than the parts of a curriculum. The very diversity of subject combinations from school to school and even from form to form make it difficult to use it, beyond the common core of subjects which at the age of 10 or 12 may form a substantial part of the whole, but which has shrunk to a relatively small proportion by the age of 15. Moreover, any monitoring of the performance of pupils must take into consideration the needs and expectations of society and this implies a description of the curriculum which is other than a list of subjects studied. Society's demands are not for a person who 'knows' history or geography or Latin or mathematics, but for

a person who has acquired a number of skills and items of knowledge and who has developed in a number of different ways, whether through the study of history or geography or Latin or mathematics, or through some 'integrated' programme of work. The separate lines of development may not relate closely to subject boundaries, though subjects may well be the best way of furthering them.

Additionally it could well be that a cross-check will be the more effective if it is made from a different viewpoint. If it is possible to set up a model other than that adopted for the school's implementation of the curriculum, a model which lends itself to use as a basis for assessing performance across the curriculum, but which rests on its unifying principles rather than on subject diversity, then other advantages would follow, two in particular: first, if a relatively small number of key forms of pupil's development could be generally agreed upon as underlying the whole curriculum, then the profile of assessment might prove to be reasonably comprehensive without being impossibly complex: second, this unity of approach to assessment could coexist with the wide diversity with which these central principles are embodied in school subjects; such an assessment process would impose the minimum of constraints upon the school's organization and design of its curriculum.

In defining these lines of development an obvious starting point is language—reading, writing, speaking, listening—the prime medium of education. Quite clearly if language were thought of as an area of performance with which only the English teacher is concerned, the range of subject matter and the range of registers or modes in which the pupil is given experience would be gravely restricted. While conversely, the different language requirements of (say) science or history will be less well provided for unless there is an overt recognition of these differences, and of the need to help pupils to develop competence in a number of different types of writing.

There is some analogy between language and mathematics, since both exist as an end in themselves (with their own aesthetic qualities) and also serve as media or tools for other subjects to use. It is also generally recognized that some fluency in both is needed for a person who is to play a full part in present-day society. Starting from these two it is tempting to look for a range of other areas of development underlying the subject structure of the curriculum and nurtured by the contributions of several subjects or curriculum areas. If they can be found, they might be used as the basis on which to assess the performance of pupils.

Initially, one might identify the following six such areas of pupil performance—though this is not to suggest either that there are no more than six or that, however many one identifies, their sum will form a wholly satisfactory description of the curriculum.

1. Verbal—communication through reading, writing, listening and speaking in a wide range of modes to suit the occasion, the purpose and the subject matter. This is perhaps self-evidently the line of development to which every subject in the curriculum can contribute, and on which every subject depends.
2. Mathematical—communication through number, graph, model and diagram. The range of subjects which contribute to this (or which depend upon this) is less than the first, but still includes all which are concerned at any time with the non-verbal communication of concepts of quantity or relation.
3. Scientific—observation, the selection, evaluation and use of evidence, testing of hypotheses, the use of experiment. While verbal and mathematical development is concerned with forms of communication, this is more a matter of technique and approach. It is equally relevant to history and geography as to chemistry or physics.
4. Ethical—the pupil's understanding of himself, his development as a responsible person, his sensitivity to other people and his moral attitude towards his environment. This again forms an element in most parts of the curriculum. Religious education, history, literature perhaps in particular offer a fruitful context, though science and geography have a part to play; drama, debate and the analytical essay are among the techniques used to explore and deepen it. The general life and organization of the school are significant for this as for some of the other lines of development.
5. Aesthetic—the pupil's appreciation of form, colour, texture, sound; his affective response to his environment, his respect for quality, his capacity to harness imagination and feeling in creative work. This, like the ethical field, is self-evidently concerned both with mind and feeling. Again, it forms an element which can hardly be excluded from any part of the curriculum without aridity. It is certainly to be found in mathematics and science as well as, more obviously, in the creative arts.
6. Physical—the pupil's developing muscular control, his ability to use his body efficiently and expressively. This involves a range of physical skills, from those needed by the pre-school child when he first starts to use a pencil to the sensitive handling of scientific apparatus, the use of paintbrush, scalpel or chisel, and the use of movement and dance in communication.

Problems to be overcome

It is not claimed that these aspects offer more than six roughly identifiable areas within which assessment could be attempted. Within each of them there is a great complexity of forms of

behaviour, including interrelated skills, attitudes, understanding, ways of thinking in combinations which are infinite in number. Any assessment must be based on some sort of sampling, and the items tested can only be a tiny proportion of those present in the school curriculum. It is important that they should be the most significant, even though it is likely that the most significant will often be the most difficult to assess.

Furthermore, the fact is that none of these lines of development can be isolated from a context of knowledge. Although they exist as ingredients in many different parts of the curriculum the form in which they exist may be markedly changed by the subject matter with which they are associated. This degree of change certainly adds to the problem of assessment. Is it so great as to discredit the notion of generalized lines of development?

Leaving for the moment the desirability or practicability of testing knowledge or information, how far is it possible to assess pupils' performance in these areas without incidentally testing their knowledge or their memory? Is it useful to differentiate between that knowledge which appears to be essential to performance in each of these areas (for example, number bonds which need to be recalled in computation, vocabulary that needs to be recalled and used selectively in verbal communication) and the 'accidental' areas of knowledge to which they are applied (for example, an historical person or a geographical theme)?

A great deal of the time and energy of teachers and pupils in school is devoted to the communication and reception of information, and the tests of attainment as instanced by examinations lay very heavy stress on this. It is in fact largely because of this emphasis that examinations exercise so constricting an influence on the curriculum. The inclusion to a major extent of the testing of information in a national assessment would be far more constricting, even if pupils were to be tested in an area of information of their own choice, in the same way as candidates can choose between different syllabuses and different examinations. Yet it is clear that among society's rightful expectations of education is that there are some things that pupils should know. Whether any two people would ever agree precisely as to what those things are is a different matter. There is broad agreement that pupils should know something of the historical development that has influenced the form and quality of contemporary life, but whether that study should start with the Greeks, the Normans, or the nineteenth century, whether it should concentrate on the pupil's immediate environment, or this country, or on Europe, or should cover the whole world, whether its emphasis should be political, military, aesthetic or social are all rightly matters of dispute and sources of the wide variation of practice in schools.

In almost all other subjects, too, there is to be found a similar agreement on aims linked with the belief that alternative paths

to these aims should lie within the competence of the teacher. No form of assessment that restricts this area of choice is desirable in so far as the material and methods derive their validity ultimately from the unique interaction of teacher, pupil and environment. Is it, however, possible to assess the degree to which the aims are being met without dictating content? Is it possible to test the degree to which a pupil understands the society in which he lives with the insights of an historian, understands his physical environment with the insights of a geographer and a scientist, and understands both with the insights of a poet and artist, without in each case defining the area of information with which the student is expected to be familiar?

The sort of approach described in this section implies the use of the widest possible range of modes of assessment of which the standardized test may prove to be but one. There will surely be room, too, for the structured, if ultimately subjective, assessment of observer, teacher and pupil.

Monitoring the whole curriculum

A number of tentative hypotheses may be advanced about the conditions under which such assessment might be carried out:

1. While having an external validity, it should not be imposed wholly from outside, but involve at least teachers and possibly also the pupils themselves as active participating agents in the assessments.
2. It should cover a broad spectrum of educational objectives and not only a few easily measurable skills or areas of knowledge. Even though the latter may prove adequate indicators for researchers for many purposes, a monitoring process must both rest upon a broad basis of assessment and be seen to do so, if it is to be acceptable to teachers and pupils and credible to the public as a whole.
3. It follows that methods of assessment will need to be varied, sensitive and responsive, both to teaching modes and to society's expression of its needs, and certainly not restricted to paper and pencil tests, however administratively convenient the latter might be.
4. The objectives of monitoring must be made very clear, the methods adopted must be appropriate to those objectives, and the interpretation of the findings recognized as a strictly professional matter. The implication of this is that for any proper purpose that can be foreseen, a sampling process will be all that is required. Such a process may be expected to have the minimum effect both of disruption in the course of administration and of influence for good or ill upon the curriculum.
5. Since, as has been stated earlier, the interests of the teacher and of the administrator in assessment are very different, it should be kept in mind from the start that a highly desir-

able by-product of the development of monitoring instruments should be the parallel development of materials that could help in the purely internal assessment procedures in schools.

6. The public examination system forms an enormous assessment industry and any new forms of monitoring would need to be justified as complementary to this. One such justification is that in 1972 the total proportion of pupils with one or more O-level pass or one or more CSE grade 5 pass or better was no more than about 55 per cent. A modest performance in a single subject can hardly serve as an adequate assessment of the influence of a full curriculum for eleven years on the pupil's performance, and yet some 45 per cent of pupils fail to have their performance assessed even to this minimal degree. Moreover, it would seem to be common prudence not to wait to the extreme end of an eleven-year process before checking on its effectiveness.

Within a short article it has only been possible to refer briefly to the case for monitoring educational performance and to offer some preliminary thoughts about one way in which such a monitoring task might be approached. My purpose is more to initiate discussion than to suggest solutions—I raise more questions than I seek to answer. The approach suggested may appear to some to be over-ambitious and impracticable, to others to oversimplify through failing to take account of many of the fundamental purposes of education. It would certainly require substantial study and research to elaborate and refine it to the point where it might form the basis of a comprehensive monitoring system. However, the alternative could prove to be a growing pressure for the imposition of far cruder measures of educational effectiveness that could both restrict the freedom of the teacher to teach as he judges best in his circumstances and distort the work of schools through the application of far less adequate criteria of performance.

Standards in school mathematics

ROBERT LYNESS

Robert Lyness was formerly Staff Inspector for mathematics. He was recently a part-time consultant on the NFER feasibility study, 'Tests of Attainment on Mathematics in Schools'

The last two decades have seen changes in what mathematics is done in schools and in the ways in which it is taught to children. These changes are variously claimed to be good, bad and indifferent. Many of the innovators and their critics would like some objective measure of how standards of achievement are changing.

Not only teachers and educationists but employers, administrators and the general public are concerned with standards. Although many resources and much manpower are given to education the quality of what is produced is largely a matter of opinion. In some fields measurement is very difficult. I believe that provided one is not too ambitious one can get useful and reliable information about standards in school mathematics.

Evaluation

Some recent evaluations, studies and enquiries have been summarized in a pamphlet published by the Mathematical Association.* This concludes 'From the summaries above it can be seen that there is no broad area of agreement, and indeed, in some aspects, the studies appear contradictory. This counsels caution, not only in the interpretation of evaluative studies but also in undertaking any 'definitive' large-scale exercises in evaluation'.

The end of this conclusion seems to me to be a *non sequitur*. Even if we disregard 'evaluation' which is little more than description and friendly advice given to projects, the fact that there is no broad area of agreement and indeed some contradiction strengthens the case for a large-scale evaluation which is not centred on particular curricula and teaching methods. The counsel of caution over undertaking (*not* interpreting) such large-scale evaluation seems to me to be of the same nature as a counsel of caution from the retail trade discouraging the provision of a retail price index, because various researchers have found contradictory trends in prices, methods of distribution, etc., and do not agree on the economic theory used to interpret them. A retail price index is valuable, but it does not tell *why* prices

* *The evaluation of modern mathematics curricula*, MA, 259 London Road, Leicester.

have changed. Neither will an objective measure of mathematical attainment.

How can one say whether school mathematics is improving or deteriorating? Some teachers are pleased because children can now deal with sets. Some employers are displeased because their apprentices cannot calculate as well as in the past. They may disagree over whether sets are more important than efficient calculation.

A design

I give a rough outline of the kind of design which was considered by the National Foundation for Educational Research in a recent feasibility study* commissioned by the Department of Education and Science. School mathematics was divided into categories. One category might have been sets and another, calculations. Periodically, say every term, small random samples of 11-year-olds or 15-year-olds taken from the whole school population are given tests containing questions from various categories, and as time passes the changes in category scores are noted. A moving average say of six successive terms will show trends in standards of performance. Children may perform better in sets and worse in calculations. It may be that more time may be given to one and less to the other. Teaching may be more or less effective. Class organization may be changing so that sets benefit and calculations suffer. It is open to researchers to investigate such hypotheses if they want to. But we have as a fact that performance on questions designed to measure ability to deal with sets has improved and with calculations has deteriorated.

It may be argued that such a fact is unimportant. Economists may consider the retail price index unimportant compared with, say, other price indices or information about the terms of trade, the confidence of business men or the community's propensity to consume. Similarly, educationists may consider more important measures of children's attitudes, concept-formation or 'creativity'. However, in these fields definition is more difficult and measures much less reliable. I do not think we should be too ambitious.

Test items

A criterion for the mathematics tested in the NFER study was that it was mathematics that children at 11 plus (and 15 plus) could be expected to have done. Accordingly, advisers were asked to comment on the suitability of questions as testing work actually being done in schools, not necessarily the work that they or others thought should or should not be done in schools. Fac-

* The first part of the study *Tests of attainment in mathematics in schools* ended in 1974 and NFER hope to publish a report in the autumn of 1975. The study has been extended by DES to cover other aspects and is expected to finish in March 1976.

torizing algebraic expressions—like smoking—is disapproved of by many enlightened people but the price of tobacco is not excluded from a retail price index.

Test items were put into categories which could be easily recognized by their names, for example everyday arithmetic, use and construction of graphs. They were not generally categorized by the mental abilities which might be needed to answer them. One simple reason for not doing this is that the same question may be answered using different thinking. What is familiar knowledge to one child may involve experiment, generalization and reasoning in another. However, there were categories on logical reasoning and problem-solving.

The items in each category were tried out on samples of children and from the results a difficulty-coefficient was attached to each item. The analysis was such that the total score on any (say) six items obtained by a random sample of (say) twenty children, when each of the items is weighted with its difficulty-coefficient, can be expected to be the same as the total score on any other six items (similarly weighted) obtained by any other sample of twenty children from the same population. It is, therefore, not necessary to use every item in the category to ensure comparability between different testings.

The question of how secure the tests might be is of importance. Put at its worst, schools might come to know the test items and their pupils might be taught how to answer them correctly. One would not want to measure standards in 1985 with items which, though new in 1975, had in the meantime become well-known and well-practised. In a category such as problem-solving, genuine problems posing unfamiliar situations in 1975 would be well-known applications in 1985.

From term to term different collections of six items from a category would be used and any particular school in a termly sample would be unlikely to be used again for a long time. Even if there were collusion between large numbers of schools it is possible to introduce new items continuously as will be explained later.

Would there in fact be likely to be collusion? I do not think so for no glory or shame comes to any school or child being tested. Teachers are concerned with standards and provided they are satisfied that the testing is fair they will cooperate fairly. Like most of us they are tired of generalizations based on carefully selected or too few particular instances. And nowadays they know enough of statistics and sampling not to follow the example of someone (so the story goes) who in a national survey was asked to make a return of the performance of every fifth pupil in an alphabetical order starting with the first. He found the overall performance of his pupils was 'unfairly' low when he started with the first, so he started with the second.

Changes and achievements

What is done in schools changes as the years go by and to test 1985 mathematics with items devised to measure what is done in 1975 is like ignoring in a cost-of-living index the arrival of television and decline in cinema attendance. A solution envisaged by NFER lies in the use of dummy items. These are items which are put into tests but whose scores do not contribute to the current evaluation. The response to them, however, allows difficulty-coefficients to be attached so that they may be used and scored in future evaluations.

The content of school mathematics changes slowly and new things take much more time to be absorbed than the publicity surrounding them might suggest. There is time enough to phase in the new and accepted and phase out the old and discarded, so that current school mathematics is evaluated and trends can be seen.

The supervision of what goes into the tests and the interpretation of results should be the responsibility of a committee containing mostly persons who have extensive knowledge of what mathematics is being done in schools. The natural temptation to broaden the evaluation so as to include what cannot be reliably measured must be resisted; and we should ignore advice to scorn bread because we cannot have cake. Though traditional and reformist opinions influence what is done in schools to varying degrees so that some schools are said to be doing traditional and others modern mathematics, school mathematics has a large common content. Good standards of achievement come from good teaching and syllabuses which children find enjoyable and relevant to their interests (which include the values they believe society places on mathematics). But what is good teaching and what are good syllabuses are not here our main concern. We want to know how successfully the schools as a whole are achieving their aims in the narrow sense of how successfully children can do the mathematics they have been taught. We do not want the process of measuring standards to influence what is taught or how it is taught, although reliable evidence of trends will no doubt cause movements to sustain or reverse them.

I believe that measuring standards in some such way as this article has described can be made sufficiently reliable and valid to be useful. If a start is made refinements and extensions will follow in the light of experience gained.

Recruitment standards for school leavers

ALAN BROWN

Alan Brown is head of the Post Office Appointments Centre

The Post Office is one of the largest businesses in the United Kingdom, with a work force of over 420 000, operating on a national basis and employing staff with a wide range of educational experience and widely varying standards of education. Our annual recruitment figures run into several thousands, and we recruit to over eighty different grades: from accountants, engineers and executives to handymen and labourers, as well as the more familiar postmen and telephonists. Thus, in a rather large nutshell, we have all the problems in recruitment, employment and wastage of people at work, from the highly qualified professional man at one end, to the unskilled labourer at the other.

Identifying the standards

To examine the sort of standards we look for in school leavers, we will first need to introduce a fairly broad classification of recruitment levels. This can be as follows: management and professional entry, clerical and technical entry, basic grade entry. The standards applied to each level can also be divided broadly into two: educational background, suitability for the job.

In common with most other employers, we generally relate the level of entry to the level of educational qualifications, at least in the first instance. This gives us a very broad indication of probable intellectual abilities, and provides a convenient means of matching our recruitment targets to the potential labour market. However, when it comes to selecting people for specific job areas within each 'educational band', we look first at the requirements of the job, then relate these criteria to the applicant population.

Naturally the requirements vary, but there are certain basic factors which are common to most jobs; these are: special aptitudes, personal qualities, physical qualities, motivation, potential. So this is perhaps the area of possible conflict that we need to examine: the qualities produced by the educational system measured against the standards required by the employer.

Education		*Employment*	
Academic training	Knowledge	Aptitudes	Motivation
	Expectations	Personal qualities	Potential
Experience	Attitudes	Physical qualities	

Management and professional entry

In the specialist fields possession of a degree or equivalent professional qualification is essential. Here we are looking for particular disciplines and areas of study which can be directly related to the job to be done. Examples are to be found in engineering, scientific research, econometrics, statistics, and so on.

Another area in which possession of a good honours degree is considered an essential prerequisite is that of the potential 'high flyers'—the future top managers and directors. Here we are looking for a level of excellence both in intellect (the specific discipline of the degree is less important than its quality) and in personal strengths: the drive, maturity and overall capacity to reach the top. These jobs are very few in number, but so are suitable candidates. Not surprisingly, competition is fierce amongst the applicants on one hand, and employers on the other. In the case of the Post Office, graduate candidates will be competing not only with each other, but also with the best of our own people applying for promotion from within the organization.

The great majority of junior management posts are open to graduates, diploma holders, or A-level school leavers. The relative merits of starting a career at each of these levels have been exhaustively argued, so I will not dwell on them. As far as the Post Office is concerned, there is a good case for each. On the one hand, an able graduate will usually outshine the A-level entrant both at the initial selection stage and in early career days, particularly in terms of maturity, breadth of outlook and personal skills. On the other hand, a good A-level entrant often has fewer pre-conceived ideas to unlearn, is more ready to accept the routine day-to-day work and is less easily dissatisfied.

From the point of view of promotion within the firm, there is little to choose between the levels of entry. The A-level entrant will generally have had about three years' useful work experience compared with the graduate at age twenty-one, and could in fact be a little ahead initially in the 'promotion stakes'. However, by the time they are both in their mid-twenties these differences will have evened out and opportunities for progression to middle management will be open to both on the basis of merit.

In either case the determining factors in initial selection, in performance on the job, and in promotion prospects, are the personal qualities and aptitudes of the individual rather than academic background. We are looking for the ability to think in practical terms, organizing skills, imagination, drive and maturity that, given the right training and experience, will take the candidate up the management ladder.

Clerical and technical entry

We look initially for the basic 'core' abilities in reading, written

work and numeracy. Unfortunately, these basic essentials are not always present, even where the candidate has gained the appropriate O-level or CSE certificates. Entrants at clerical and technical level will be encouraged and expected to make use of further education courses.

To support the educational achievements there must also be evidence of particular personal qualities and skills. For instance, most jobs demand an ability to get on with other people, whether as a member of a working group or in dealing with the public. Thus we want to see signs of good personal relationships, willingness to help others, reasonableness, adaptability and reliability. We look, too, for any special aptitudes which can be used; typing ability, facility with words or figures, a talent for drawing or design.

In the technical apprenticeship areas we look initially for educational achievements: mathematics and sciences in particular, and to O-level standards for preference. We also seek evidence of particular aptitudes for the job: evidence of manual dexterity, an understanding of electronics and electrical theory and so on. Perhaps the candidate is keen on building models, making simple radios from kits, or helping his father maintain the family car. Information like this can help us to put the applicant in the right job.

Here, too, social skills are important. Apprentices work closely with others and for others and will eventually be in charge of others. They will also be visiting customers at home and on business premises, and will be representing the Post Office to outsiders. Again we look for interpersonal skills, tact and firmness.

Basic grade entry

Educational qualifications are not so important at the lower levels of entry, but we want to see adequate ability in reading, spelling and numeracy. Personal qualities and aptitudes play a large part in selection, and for certain jobs candidates have to meet minimum physical requirements.

Social skills are again important, particularly in dealing with customers. Telephonists, for instance, need to be patient, alert and courteous. They must be able to work easily with others, without being so gregarious that they are too readily distracted from a task which requires a great deal of concentration.

Many of the jobs at this level call for close supervision, and thus another essential requirement is the willingness to accept authority which is reasonably exercised without resentment. With changing attitudes in society this is, of course, a problem for schools no less than for employers. But a school-leaver who has not learned to accept supervision and authority at school is very unlikely to adapt easily to the demands of employment in any worthwhile job.

Applying the standards

As I have indicated, the qualities and aptitudes we look for in filling jobs at various levels are not measurable solely in terms of educational standards. We have to supplement this information with our own selection process. For almost all jobs at all levels we therefore use a system of selection tests and interviews, graded in difficulty according to the level of the post to be filled and the specific abilities required.

At the higher level of entry the selection process is geared more towards assessing future potential than immediately usable skills. Candidates are given a battery of tests designed to assess reasoning ability in verbal, numerical, abstract and technical terms. They are also interviewed and given exercises designed to gauge interpersonal skills, practical thinking ability, maturity and leadership qualities.

At the lower levels, on the other hand, the emphasis is more on measuring the specific skills required for the job. For example, tests for clerical posts include checking and filing ability, figure work, grammar and spelling. Prospective postmen are also tested for their vocabulary, verbal skills and their perceptual speed and accuracy. Again, in every case, the applicant has to show the right personal qualities in interview. We do not use any one particular, easy-to-apply 'standard'—it does not exist. What we use is a package of information, some of it objective, some subjective.

Future problems

I have already mentioned feelings of disquiet over difficulties now being encountered with poor writing and numerical skills and the lack of self-discipline. There are other problems too. The lack of knowledge and appreciation of what 'work' is all about continues to concern employers. Many school-leavers have little understanding of the role of industry and often have no means of relating their education to the work situation. There is still a great need for more careers teaching and guidance: more money, more manpower and more time allowed in school timetables. If this seems totally unrealistic in the present climate, I can only say that the educational cost of inadequate guidance in terms of the false starts made by many applicants for employment is only too apparent.

There is still a tendency in many schools to regard as failures those pupils who are unable or unwilling to go on to higher education. All too often the mark of success is measured solely in terms of academic achievement. This shows a lack of appreciation of the demands of the outside world, and is hardly designed to foster the right attitudes in school-leavers.

Another matter for widespread concern is the shortage of qualified engineers and technologists. These people are essential in our technological age, yet they are becoming scarcer year by

year. Industry is crying out for them; universities and colleges have many unfilled places; yet schools appear unable to produce them. If there is still a bias in some schools against engineering for being 'non-academic', then those schools are out of touch with reality.

If we are to find tomorrow's engineering researchers, designers and innovators, then they must be given the right encouragement *now*. Decisions have to be made at the O-level stage; interest in mathematics and sciences must be fostered and pupils given a clear picture of the opportunities available to them. Nor is this simply a matter of meeting engineering manpower requirements; in a technologically based industry, we would welcome a substantial increase in the proportion of our general management entrants who combine the necessary personal qualities with a rigorous engineering or scientific training.

Conclusion

It is a truism that industry and education must both play their part in ensuring that school-leavers are given the right guidance at the right time, and that educational standards are relevant to the requirements of the employer. The problems of actually achieving this cooperation are formidable. Not only is communication between employer and those engaged in education difficult, but employers face increasing uncertainty in assessing their own future requirements in a rapidly changing society.

Going Comprehensive

One outcome of reorganization has been greater cooperation between educational institutions; coordinated action and the sharing of resources have become increasingly significant. The first of these two articles provides a general account of the present situation and the second a description of a particular scheme initiated by Birmingham.

Trends 1975/2

Using existing resources

S. E. GUNN

S. E. Gunn is Staff Inspector for secondary education

In the ten years since Circular 10/65 we have come face to face with some novel educational problems, and amongst them are those produced by the coexistence of a selective system with comprehensive schools. They are problems which have caused frustration both to local education authorities and to the schools and those who are in them, but their impact is not evenly felt over the system as a whole because they are closely connected

with other pressures (particularly in large cities) and consequently there have emerged from the process those people who are prepared to accept this frustration, at least as an interim necessity, and others who see the anomaly of selection coexisting with comprehensive schools as an unacceptable situation.

At the same time, a situation has arisen, sometimes because of the need for reductions in public expenditure everywhere, but also in some urban areas because of demographic changes and a decline in school population, that makes it seem likely that many districts cannot, in the forseeable future, look forward to the amount of school building which would enable them to achieve a fully reorganized system in purpose-built premises. This situation has not come suddenly upon us from a summer sky. All the circulars on reorganization have one common theme—that no special allocation of capital resources is available to give specific support to the change. But it happens that in the earlier years of the decade of coexistence (1965-75) we held more rigid and formal ideas about the structure both of schools and of patterns within the school system. Schools, if comprehensive, had to be viable and this originally meant between ten and fifteen form entry, though we soon came to regard eight form entry as the optimum size, and six form entry as acceptable. The very large size was the doctrine of the 1950s and early '60s, and Circular 10/65 gave its support to the lower figures. Subsequent events confirmed these notions, for very large comprehensive schools remain few in number and the average size settled at less than 1000 pupils and has remained somewhere near that figure. In the early 1970s an increasing interest in small comprehensive schools was caused mainly by two things—an awareness of the problems involved in running large schools and a growing realization that a fully comprehensive system would be a long time coming unless existing buildings could be utilized.

Split premises

Right from 1965, however, the idea of making use of existing resources had been a major factor in the comprehensive plans of local education authorities. The most obvious example was in the use of split premises to achieve a school of six or eight form entry using old secondary school buildings. Circular 10/65 had given a sort of precedence to 11 - 18 schools which subsequent circulars have abandoned. The obvious way of using existing resources, therefore, was to combine two schools to get a viable size. Separated premises were also used in some of the two-tier arrangements which emerged after 1965. These were usually of an interim nature, as were split sites, and the Circular had given only a restricted sanction to some of them. They were often in the older type of premises because they were usually urban and they divided what could be a short secondary course into two independent parts, creating many problems of coordin-

ation in doing so. Consequently, the two-tier arrangement, in those areas where it was adopted for interim purposes was rarely, if ever, popular. In a sense, it was the earliest effort to use existing resources to achieve a maximum degree of reorganization.

Split premises seem likely to be a longer, more sustained effort to use existing resources to achieve reorganization. It seems an obvious solution in the small country town which has two secondary schools, each of three or four form entry. In some such towns it has been tried, carefully planned over a year or more, and implemented under reasonably favourable conditions. The drawbacks and problems of arranging a comprehensive school in this way are now well-known but the advantages in places where it has been made to work well have not usually been well-publicized. Unfortunately, split premises have sometimes been adopted without the measures likely to help towards success, and the device may well have achieved a worse reputation than it deserves. We know that it places a very heavy additional burden upon the staff of such a school and particularly upon those teachers who are required to move between premises. So this solution must be accompanied by measures which will reduce this additional burden just as various other steps must be taken to duplicate books and equipment (where necessary), to provide proper communications and ancillary help but, above all, to make sure that the two sites will accommodate convenient groups of pupils and that, before pupils and teachers move in, there is a convenient and sufficient distribution of specialist rooms in each building. It is not easy to arrange much movement of pupils between sites, but it is neither possible nor desirable to avoid movement of teachers altogether.

It is in relation to split premises that we have the fullest practical knowledge, gained over the whole decade of coexistence, of an attempt to utilize existing resources to achieve immediate reorganization as an alternative to waiting for purpose-built premises. Many of these experiments have been tried under very difficult circumstances, so our range of experience of them is far from narrow.

On the whole, for very good reasons, teachers tend to dislike schools in split premises but, even so, they will often agree that opportunities for many pupils have been considerably increased by some of these schools. The position at present is that we have a good many schools on split sites and that we know the cost, both in human and material terms of this solution; in other words, we have enough experience both to judge whether it is a workable solution in given circumstances and to adopt the procedures which will make it work with least strain upon staff, pupils and resources.

Sixth form colleges

So much for these specific attempts to find a comprehensive solution, mainly for individual schools rather than for areas, without additional resources and making use of existing school buildings, sometimes with relatively little adaptation. If we turn to the more general process of achieving a pattern of comprehensive schools for an area, we cannot avoid the conclusion that solutions have been heavily influenced by the nature and shape of existing capital resources. It is true that such material determinants have been powerfully supported by the growing popularity of two organizations, separate sixth form institutions with transfer at 16 and middle schools with transfer to secondary schools at 12 or 13. The sixth form college received only guarded approval from Circular 10/65 but there are now many of them (and more plans already approved) and they have grown in number in the face of strong resistance from influential bodies. The motives behind this growth have been mainly educational and largely concerned with the desire to systematize the 16 - 19 area of education and at the same time to solve the large-scale problem of curricular viability after 16 and avoid splitting A-level and other sixth form work between several thousand separate units. However, it cannot be ignored that in towns of certain sizes such a solution may be attractive partly because it is compatible with existing resources. For example, the then county borough of about 110 000 population, with a ring of purpose-built secondary schools around the perimeter of the town and grammar schools in the centre of the town, was able to reorganize its secondary education and abolish selection by adapting its two single-sex county grammar schools (separated by 350 yards) into a mixed sixth form college, changing its perimeter schools into 11 - 16 comprehensives of an average size of four or five form entry and making use of some secondary premises in the town centre for a split site 11 - 16 school.

Size of school

There is nothing educationally wrong with a solution simply because it is the one which fits existing resources, nor indeed with those solutions such as the 13 - 18 schools which are operating satisfactorily and happily as comprehensives after many years as grammar schools. In some places it has happened that the governing bodies of some voluntary grammar schools and the governors and staffs of some county grammar schools have found that a 13 - 18 solution is acceptable to them because their resources and staffing are suitable for adapting to this role. Existing buildings tend to suit a middle school organization in more scattered urban areas, but they are found in other places and, as with all other solutions, what has emerged must be attributed to a mixture of educational and material reasons. In

other words, several processes have been going on during the last decade which affect the situation today. We have become reconciled to the idea that there will be both large and small comprehensive schools, that very large schools are unsuitable in some problem areas, that five form entry is about the smallest 11 - 18 school that can stand satisfactorily on its own, that the pattern of comprehensive schools is likely to be varied and to involve transfer at 10, 11, 12, 13, 14 and 16. We have accepted this varied pattern for a mixture of reasons which are partly due to the nature of existing resources, partly to the strong pull of educational ideas (for example, ideas about middle schools, or ideas about separate institutions for the over-16s) and partly also on account of the desire to get the processes of secondary reorganization completed as quickly as possible. In recent months this last motive has been strongly supported by discussion of the anatomy of coexistence. As has been usual in the process of reorganization the way has been prepared by events. In 1968 the paper on the viability of secondary schools produced by the Inner London Education Authority and entitled *Sixth Form Opportunities in Inner London* established the limited degree of A-level viability which could be achieved by an eight form entry comprehensive school in London in the situation which then obtained with 17 per cent of the pupils in selective schools. The conclusion arrived at was that a limited viability could be extended by cooperation at sixth form level between neighbouring schools.

A year or two later there was public discussion about the possibility of maintaining small 11 - 16 (and even 11 - 18) schools which for one reason or another were never likely to reach the size hitherto included within the range of normal viability. They could be isolated rural schools, or sometimes Roman Catholic schools, which would want to go comprehensive as soon as possible but which, for one reason or another, were likely to remain very small and might even find it difficult to cooperate with any other school on account of rural isolation. By this time (1972) there were already a considerable number of small rural comprehensive schools in both the north and south of England and this journal carried a series of articles on the general question of how viable these schools (some of them as small as three form entry could be). But these were usually small schools because of geographical circumstance, existing in areas where the abolition of selection appeared to present few problems because the reorganized schools could provide as well as the much smaller country grammar schools which they supplanted. The discussion offered little to help solve the problem of the small urban comprehensive school which might have to coexist with a six or eight form entry comprehensive school not far away.

A small urban comprehensive may well hold its own in recruiting pupils (assuming that there is a real element of parental

choice in the transfer arrangements) because of its previous position in public esteem or, indeed, because of its staffing and even of its small size. But it will have difficulty if it is, say, three form entry in finding specialist teachers and viable groups of pupils in the less popular academic subjects and it may well find difficulty in catering for, say, remedial work or commercial subjects. If it is an 11 - 18 school it is likely to be able to provide only a very limited range of A-level subjects.

Sharing of resources

Some of these difficulties were encountered in the 11 - 16 schools of four form entry which were trying to maintain a full range of subject choice for their pupils who, at 16, would have the sophisticated range of a sixth form college offered to them. It was found difficult to provide classics, second modern languages and some other subjects at suitable stages and with specialist teachers. Various solutions have been tried; part-time teachers are often not available, yet this problem consists of the existence of several highly specialist part-time jobs in each school. Sometimes 11 - 16 schools have used teachers from the sixth form college, sometimes a peripatetic teacher, and sometimes pupils have assembled in one school. In a way, this was the earliest aspect of the need for schools to cooperate below the age of 16. But beyond this there has, in fact, been relatively little sharing of resources with pupils below the age of 16 in comprehensive schools. However, the impulse to do so in several parts of the country has come at a time when there has been quite a lot of experience of resource-sharing in schools in split premises and a good deal also in sixth forms. There has also been a very considerable amount of cooperation between schools and colleges of further education below the age of 16 and it ought to be possible to identify the main problems.

It would be dangerous to minimize these problems. First of all, the curricular coordination between schools must be considerable, secondly the actual timetable inhibitions created by a moderate amount of movement of pupils at, say, fourth or fifth year stage is considerable, and thirdly the actual machinery for achieving such a degree of cooperation is an educational novelty which we shall all have to get used to. However, the fact that, in the main, we have only incipient examples at this stage to refer to need not discourage us if we reflect upon the relatively quick success of a novelty such as CSE.

At sixth form level there has been much more experience of cooperation between 11 - 18 schools and between schools and colleges of further education. The device of having 11 - 16 and 11 - 18 schools within the same local pattern and concentrating the post-16 work in the latter has become familiar. In the absence of full and reliable knowledge of the impact of transfer at 16 upon objectives and upon motivation it is difficult to make

educational judgments upon the practice (although some would believe that the 'stem' of the 11 - 18 school offers opportunities superior to its 11 - 16 neighbours), but any system of resource-sharing may well involve transfer of pupils, particularly at either 14 or 16.

One well-known scheme has involved a rationalization of post-16 A-level courses, avoiding duplication and extending the total range by setting up a federation containing a school and a college together with a unit for receiving applications for courses, assessing demand and arranging the consequent pattern. There have been several 'federal' arrangements of this sort. Perhaps the fullest development along these lines consists of the very large school of between 2000 and 3000 pupils (in a town with only this apart from a small Roman Catholic school) where existing resources offered premises on a campus site (in all but one case) for separate 'halls' (virtually independent units) under their own heads and containing years one to four. Years five, six and seven were in a central unit which had been purpose-built on the campus site. This school has built up a large experience of shared staff, of encouraging the autonomy of units within a coordinated system and of linking more advanced work in a large and sophisticated unit with the work of relatively small 11 - 15 schools. (The organizational pattern has now had to be altered with 16 as the age of 'transfer'.)

In London there are some encouraging examples of cooperation between large and smaller schools intended to share extended opportunity by sharing resources. In a sense, they, together with the other similar experiments, mark the end of the decade of coexistence in which we thought of all schools as being self-sufficient, unitary institutions on single sites. Any departures from this ideal such as schools in split premises were necessarily unsatisfactory. Other concepts (such as those about the school and the community) have been eroding this idea of what a school is. It is likely, too, that the probable developments of the coming years will make a system of coordination and cooperation easier than it has been in the past. The improved pupil/teacher ratio, the probable simplification of the curriculum, the smaller comprehensive schools with a need to seek viability through resource-sharing, the tendency towards local centralization of post-16 studies—these and similar trends postulate a considerable degree of cooperation between schools.

The development of consortia

B. DENTON

B. Denton is Birmingham education committee's Chief Inspector

In the later 1960s and early 1970s the City of Birmingham's education committee put forward several plans for reorganizing education within its 125 or so secondary schools. These plans proved to be unacceptable in a city where more than half the schools were non-selective, about a quarter were grammar, and the remainder were those (either bilateral or comprehensive) which the committee had been providing as purpose-built units since the mid-1950s. During the 1960s the extensive programme of rebuilding in the city's inner wards, and development at the periphery, presented many opportunities for building such schools with a wide range of specialist teaching facilities.

Thus in the early 1970s one of the major difficulties in reorganizing secondary education along comprehensive lines was the variety in the ages and sizes of the secondary schools. Several of the newer comprehensives had around ten forms of entry but most of the grammar and other schools had three or four forms of entry. In some cases it was clearly possible to amalgamate some of these schools into six or eight form entry units, but in other cases the separate sites did not permit this. Moreover, the smaller, older, non-selective schools did not have the range of specialist laboratories and practical rooms available in the comprehensives and grammar schools and, as financial support for providing these facilities was not available, a system of sharing facilities had attractions. Indeed, this idea was not new in the city for some secondary schools on adjacent sites had shared sixth form facilities for several years, and in building and computer studies the joint use of rooms, staff and equipment was already going on.

The consortium plan

In May 1972 the City Council initiated the process of planning the change to comprehensive education with this experience in mind, and during the summer months of that year a working party of twenty people, including education officials and members of the teachers' associations, developed a set of proposals whereby from September 1973, the selective examination was to be abolished, and the secondary schools were to be grouped into eighteen separate units, or consortia, each one within a clearly defined geographical area. It was intended that within each group of schools the total school resources of staff, buildings

and materials would be made available for all the pupils of secondary age living within the consortium area.

The proposals were discussed with parents in 1972 and put to the Secretary of State for Education with the result that by September 1973 the proportion of pupils moving on to selective schools was reduced, but of the eighteen consortia only four were entirely composed of schools able to admit pupils without reference to ability and aptitude.

The education committee decided, however, to persevere with the consortium idea and during 1974 resubmitted its proposals to reorganize along comprehensive lines using the consortium framework. Its proposals have now been accepted by the Secretary of State, so that from September 1975, all the city's county secondary schools and many of the voluntary schools will admit pupils without reference to ability and aptitude. Thus the opportunity for the full implementation of consortium resource-sharing now exists.

Essentially a consortium is a group of about six secondary schools, within a limited geographical area. The schools are no more than three miles apart, and generally much closer than this, and are accessible to each other on public transport. Within the consortium area is also a group of about twenty contributing primary schools giving, on average, a total school pupil population per consortium of about 10 000. Of these, about 900, or the equivalent of some thirty forms of entry, will transfer to secondary schools within each consortium each year.

At the age of transfer, which remains at 11 for most of the metropolitan district, parents are invited to list, in order of preference, three secondary schools from within the consortium in which they live. The education committee endeavours to meet parental first choices but where a school is oversubscribed the geographical location of where the children live is the main factor in allocating places. In certain circumstances parents can select a school from outside their consortium. This could occur when they want their child to have single sex education, or a Church of England, or a Roman Catholic school, or to join a sibling at a school outside the consortium. Where a child lives in one consortium but attends a primary school in the next consortium, parents can include one school from the latter in their list of preferences.

Committees of heads

Within the consortium, each secondary school remains a separate entity with its own head and receives its own intake of pupils. The affairs of each consortium are conducted by a committee consisting of the heads of all the secondary schools in the group, the district inspector for the consortium, and the principal of the nearest college of further education. In most consortia the group

has also been joined by a primary head representing the contributing primary schools.

The committee is chaired by one of the heads in the group, elected annually, and is charged with keeping under constant review the overall needs of the consortium in respect of staff, buildings and materials, and advising the education committee accordingly. It meets regularly, at least once per term, and is responsible for achieving the optimum level of cooperation on such matters as curriculum planning and development, timetabling, the sharing of specialist facilities and staff, and the continual assessment of the appropriateness of the educational provision available for the individual child at each stage of his secondary education.

One of the main functions of the committee of heads is to work towards the compatibility of curricula in the consortium's schools for the first three years of secondary education. Compatibility is important in two ways. Firstly, in that the range of subjects provided in the first three years in each school should be broadly similar across the consortium (so that French, for example, is taught in all schools in the consortium), and secondly, in that within each subject the consortium's heads of departments should have agreed upon the skills and concepts, rather than the content, which a pupil should have acquired in any school within the group by the end of the third year, according to his capabilities. Thus, if necessary, a pupil should be able to take an O- or CSE-level course in another school within the group if his own school cannot offer that subject within its optional range. It is intended that the practice of going beyond the confines of the school at which the pupil is registered will not generally begin until the pupil has reached the fourth year, and will be more common at sixth form level, where there are both economic and educational advantages in bringing together small groups of pupils wishing to follow specialized courses involving the use of expensive equipment. It is envisaged that pupils will move for blocks of time equivalent to half the school day, and in certain cases the committee of heads may decide that it would be educationally right for a child to have the opportunity of transferring completely to another school within the consortium.

Thus cooperation within the consortium involves teachers at many levels and especially those with responsibilities as heads of departments. Panels of departmental heads have been set up within each consortium to discuss and seek agreement upon the general nature of the first three years of each subject course, and the nature of public examination courses thereafter. The panels are responsible for electing their own chairmen annually and advising the committees of heads, to which they have access through their own chairmen, on matters relating to curriculum development, examination courses, and the sharing of facilities and materials within the consortium.

Problems and progress

It is too early at this stage to identify all the problems involved, but many interesting developments give cause for optimism. The committees of heads have met frequently and discharged their first responsibilities, which were to review the educational resources within the consortia and to identify the needs with regard to staff, equipment, buildings and ancillary help. Their views have been reported to the education committee. The panels of departmental heads, too, met frequently in 1973 to seek agreement on the general nature of the first three years of each subject course and they have communicated their views to the committees of heads.

One result of all these meetings and exercises in cooperation has been a widening of the knowledge and outlook of the participants, as the problems and experiences of teachers in widely differing schools have been openly discussed. At both head and head of department levels much in-service training has been quietly taking place, assisted by contributions from the local inspectorate. In some cases this process of self-education has been extended to all the teachers in a consortium's secondary and primary schools, especially where a one-day conference has been held to consider consortium progress and problems, both present and future.

Currently the committees of heads are preparing for 1976 when the 1973 pupil intake will be embarking on two-year O- and CSE-level courses. One matter being considered is the range of fourth year options available within each consortium. In some cases, where all the schools within the consortia are large and well-equipped, each one may well be able to offer a full range of options. In other consortia, however, where schools vary in size and the resources are less evenly distributed it is likely that, whilst all schools will offer a core range of subjects, some further subjects will be offered only at some schools within the consortium. The problems of interrelating the time tables of two or more schools within a consortium to enable this arrangement to take place are now being examined. One consortium is using computer assistance to do this. One of the earliest decisions taken by some of the committees of heads was to synchronize the number of weekly periods and the lengths of the school days across each consortium, and clearly this will be very necessary if there is to be any significant movement of pupils from 1976 onwards.

Already there is evidence of the increased sharing of facilities at fourth, fifth and sixth year levels although the full impact of the consortium principle will not be felt in these age groups for several years yet. Nevertheless, a useful bank of experience is accumulating. In one consortium the fourth and fifth year pupils from a girls' selective school use the commerce room at a mixed non-selective school within the consortium for typewriting. Last

year, in the same group, a non-selective boys' school was able to use the science facilities at a selective boys' school. In another consortium fifth year boys from a non-selective school attend a catering course at a mixed school which in return sends boys on auto engineering and technical drawing courses. In the same consortium chemistry is made available at a boys' selective school for one individual pupil from a mixed non-selective school, whilst two groups of non-examination pupils from another school attend a building and engineering course at the local technical college. One consortium is developing a joint CSE Mode 3 course in drama whilst another mounted a consortium careers convention in 1973. The sharing of resources is extending to younger pupils too, and in at least two consortia schools with their own swimming baths are making them available to other schools from within the group.

Informing parents

Communication with parents has also been considerably developed. The education committee provides all the parents of pupils about to transfer to secondary schools with a booklet giving the details of the broad aims and the academic, social and pastoral provision at all the schools within their consortium. Several consortia have also held open days and evenings when, during the course of perhaps a week, each school has been open in turn for parents to look around and to meet the teaching staff.

Links between secondary and other sectors of education have been strengthened. Several consortia have primary school representatives on the committees of heads and meetings between the secondary and primary school heads of consortia have been held. One consortium has established a general assembly which includes the heads of the nursery and special schools, whilst the use of courses linked to further education colleges has been extended.

Staffing and accommodation

To meet the staffing needs identified by the committees of heads in those schools where the existing provision did not enable the curriculum to be fully compatible with other schools in the consortium, the local authority in 1973 appointed thirty-four peripatetic teachers on scales up to five, to provide teaching and organizational skills in setting up departments where none existed before, as in modern languages, to provide continuity in schools temporarily without departmental heads, and to foster consortium-based curricula and extra-curricular activities such as orchestral and dramatic productions. These colleagues, who specialize often in subjects where skills are in short supply, include thirteen teachers of craft, eight of mathematics, seven of modern languages, four of computer studies, and two of music. Additional clerical assistance for the chairmen of the heads' committees has also been provided.

Through either the minor works, or off-programme building projects, the education committee was also able to provide some of the accommodation requirements identified by the committees of heads by September 1973. Other facilities, which include laboratories and practical rooms, are being provided as circumstances permit.

Early in 1974 the education committee made grants totalling £27 000 and averaging £1000 per school to four consortia considered to be in need of extra financial assistance. The committees of heads within these consortia decided upon the distribution of these monies. A further £12 000 was allocated to nineteen schools in consortia where exceptional needs were identified, and £9000 was made available for audio-visual and computer equipment. Items like video-recording equipment were standardized so that they could be shared on a consortium basis, and all consortia have at least one computer terminal, and in most cases two.

Supporting the structure

The arrival of the consortium has affected the educational service in many other ways. The government of schools has been reorganized to strengthen the consortium community. From 1 April 1974, eighteen consortia governing bodies were established to deal with matters relating to all the primary and secondary schools in the consortium. The governors meet at least once per term in one of the consortium's schools, choosing a different school for each meeting. In this way they become acquainted with the schools and the schools are more closely identified with the community as a whole.

The education committee's district inspectorate has been redeployed on a consortium basis, each inspector having one or two consortia to look after. The district inspectors attend the meetings of both the consortia governing bodies and the committees of heads. The Inspectorate has already found the consortium to be a very convenient unit for organizing meetings for probationer teachers, and for mounting in-service courses. A series of linked seminars looking at the problems involved in training teacher tutors was mounted in autumn 1974 in two consortia, whilst a four-year special educational treatment programme for the screening of infant pupils and the training of teachers in the appropriate remedial work has now begun, taking each consortium in the metropolitan district in turn. The possibilities of establishing a network of resource centres, each serving one or two consortia, are also being actively examined by officers and teachers.

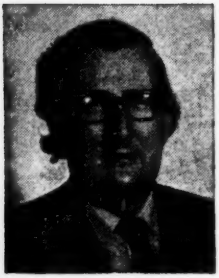
Not until September 1975, will all the county and most of the voluntary schools in Birmingham take pupils without reference to ability and aptitude. The full implementation of the consortium principle will not be possible until this date. There will

be uncertainties and difficulties in the next few years, especially in correlating time-tables, in identifying the needs of the older pupils, in communicating to them and to parents the opportunities which the consortium can offer and, for the central authority, in identifying the optimum level of central support required by a whole consortium in respect of money, staff and resources. However, in the past two and a half years the answers to many problems have already been found, and experience will provide the solutions to others as each consortium works out the operations which are best suited to the pupils within its schools. In this, consortia will not develop at the same pace or in the same direction. Some consortia, for example, may wish to include Punjabi in the subject option range for older pupils. In others Latin or Russian may be more in demand. In all consortia, however, there is a stimulating time ahead for all involved in making the total resources within a consortium available for all the secondary pupils therein.

Trends 1975/2

English as a second dialect

New thinking is needed in the field of English language teaching as the Bullock Committee's report has shown. This article advances the idea that something could be learned from the approaches adopted by teachers of English as a foreign language.



F. PARROTT

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Consider a class of mixed foreign nationals, aged 17 - 21, preparing for the Cambridge Lower Certificate in English. The teacher and his students will be surprised if more than one or two out of the class of fifteen fail the examinations. The atmosphere is one of good-humoured application to the clearly understood task in hand. The rhythm of class activity alternates between relaxed discussion and intensive practice.

Alongside this, consider a GCE O-level English language class of 16-19-year-old further education students, comprising eighteen native English speakers, of whom five are from first generation West Indian immigrant families, four Cypriots and two Ugandan Asians. The teacher thinks that one of the Ugandan Asians and possibly three of the native English speakers might 'scrape through'. The atmosphere is redolent of failure. The rhythm is unchanging—it arises from the constant rehearsal of examination questions which the teacher then 'goes over'. The teacher and the students share a resigned acceptance of the necessity of the ritual rather than any deep involvement in clearly agreed (or understood) language tasks.

That the atmosphere which informs the first, the English as a Foreign Language (EFL) class, should also inform the second, the GCE class, is the main aim of what might be called the 'two-dialect' approach to English teaching. For many teachers the idea of 'educated' or 'correct' English as another dialect—obviously important, but still one among many—is at best a paradox, more likely a betrayal. One cannot blame them, daily faced with the social fact of language inadequacy, if they refuse to accept on first hearing an academic linguist's assertion that, leaving out brain damage, there is no evidence for the popular notion of 'language deprivation' in native speakers. As one teacher put it at an English conference: 'We may see our less academically successful students—some of our craft apprentices, for instance—as harbingers of a linguistically and socially more open society, but they do not see themselves in that way; they expect us to help them reverse our existing society's judgment of them as failures'.

On the other hand many practising English teachers would agree that the chief failure of a century of public education is the failure to give the majority of people in this country any confidence in their abilities as native speakers of English. English teachers working in adult education testify that adult students from all walks of life, even though they have voluntarily returned to a formal learning situation, are extremely reluctant to commit themselves to paper or to talk in public. They are unable to see themselves as potentially good communicators other than in familiar and intimate contexts where indeed they may be very effective but where, as they have been taught to believe, they are not using 'correct' English.

Yet some of these teachers, when they try to help their students, have at their disposal only the methods outlined in the account of the GCE class above. They seem to be enslaved by the tyranny of false alternatives: either aimless language exploration or meaningless language rituals. It is to enable teachers to escape from that tyranny that a two-dialect or quasi-foreign language teaching model could be most useful.

The first results of considering seriously such a teaching model might be to bring to the surface, and show the full absurdity of, the 'eradication strategy' which is implicit in most traditional English teaching programmes and course-books. The aim of this strategy appears to be to wipe out the language patterns through which the pupil or student expresses his own experience, including his sense of self, and to replace them by patterns of standard educated English. When the aim is put baldly in this way one may perhaps allow two American scholars the most appropriate comment: 'Brain surgery, the only effective way of getting rid of a pattern, is simply not an acceptable classroom procedure in our society'.

In contrast the conscientious EFL teacher does not seem to find

himself involved in such a futile enterprise. This is partly due to the effect of looking at one's own language as a foreign tongue. When an EFL teacher 'talks about' English, the aspects which he chooses to describe are more likely to be related to the actual performance of real human beings. But, more important, the implied contract between him and his students seems to be quite different from that of the teacher of English as a mother tongue. The foreign student wants to be taught a range of skills. He is not likely to feel that his own self-esteem is at risk whenever the teacher corrects his mistakes or describes in detail linguistic forms which are strange to him

Possibly our EFL teacher may meet Emilio, that ebullient Italian, who is excessively secure in his sense of self and has to be persuaded it is worthwhile to make his fractured English more 'comfortably intelligible' to English people. It becomes a matter for debate, discussion and provisional agreement by Emilio to practise certain clearly defined language items in credible contemporary contexts. If Mr. Okeke from Nigeria is in the class, the situation may be more delicate. For Mr. Okeke went to a school where English was the medium of instruction; he was for a little while very disturbed to find that his written English differed in some significant detail from our standard educated dialect and that his spoken English was hardly intelligible to ordinary English people. Even so, Mr. Okeke is secure in the knowledge that he is noted among his friends as an effective raconteur and philosopher in Yoruba. How different is the situation, in the GCE class, of Gary Smith from Jamaica or of George Robinson from Salford. They only have English, and if that is said to be essentially and irrevocably sub-standard, not just in particular performance but in general potential, then they themselves are also sub-standard.

With Emilio and, where the teacher is sensitive and diplomatic, with Mr. Okeke, the situation described in the slightly idealized EFL class of the first paragraph can be obtained by English specialists using teaching resources readily available in 1975. It does not appear to be necessary to expose all prospective EFL teachers to the full rigours of descriptive, applied, socio- or psycho-linguistics. It seems sufficient to introduce the new teacher to the concept of stress and particularly of intonation as being as much a part of the grammar of English as word order and inflexion; then, to emphasize three golden rules:

1. All language items must be taught in a realistic and credible context.
2. The teacher should always **try** to get the students to *discover* how language patterns work—to achieve something of the insight of a native speaker.
3. Students must be aware of the lesson plan and be involved in its unfolding through their own experience of life and, increasingly, through their growing knowledge of English.

Teaching methods involving *exploration* and *participation* seem to arise naturally out of, and to be most fruitful with, EFL classes. There are *a priori* assumptions and a growing body of opinion which suggest that a two-dialect approach to the teaching of English to indigenous native English speakers would be valuable for all and essential for that majority who have never flourished under traditional methods.

The main obstacle is to be found in the ideas about standard English which inform most educated people, including most teachers of English in this country. 'It is a disheartening fact that we still find in educated professional people—teachers, journalists, public figures—the most alarming and preposterous naivety over matters like standard language and 'good' grammar'.[1] It is not the extent to which an English teacher feels he must be interventionist or prescriptive which is at issue. As Sydney Bolt rightly emphasized in a recent TRENDS article, further education students will expect the teacher to intervene and prescribe. The important thing is the intellectual and emotional climate in which he carries out his strategies.

There is no easy answer to a problem which is caused by a basic lack of language awareness in the main stream of our culture. In practice, however, it would seem helpful if more English teachers had experience of EFL teaching, particularly of highly motivated and linguistically secure foreigners who would demand intense involvement in the planning of the lessons, and relevant contexts for all language items to be practised. It is not possible in a short article to do more than indicate the kind of teaching methods and resources which are already used and could be fruitfully developed in a two-dialect approach to all English teaching. In general, however, the contention is that even what may be termed the 'time dishonoured' aspects of traditional English teaching—for instance, the egregiously silly 'common errors' lists—can take on a new lease of effective life when they are part of a programme governed by purposeful contexts, exploration and participation. There is now space only to fill out these concepts with brief notes on their practical application.

1. *Purposeful contexts.* 'Any writing task should require a particular message to be conveyed (or a particular case to be argued) in a particular context by someone writing in a particular role and addressing a particular reader . . . the context of being a candidate in an examination is not a sufficient context for writing purposefully'. So wrote the English assessors for the Ordinary National Certificate (Public Administration) Joint Committee in their notes for guidance to teacher-examiners. It was not said to make writing easier for less academic students. On the contrary,

[1] Randolph Quirk in *The Teaching of English*, ed. Quirk and Smith, Oxford University Press, 1958.

the aim is to encourage greater powers of discrimination. 'Teachers of ONC and OND students will be acquainted with the tendency to identify anything called 'essay' with the O-level model. The danger of this model is in the personal and social insensitivity which it allows students to retain [when] . . . insight is the gift which needs developing'.[2] The writer points out that the role of literature is obvious in developing this gift but that practice in *purposeful* oral and written communication is also essential.

2. *Exploration. Language in Use* is claimed by its authors to be 'a charted voyage of discovery and conquest . . . in which the (15-19-year-old) pupil can explore his mastery of language'. For example, unit D5 'examines what happens when a young child uses the rule it knows and yet produces what the adult would call a 'mistake'—for example 'Can I louden the TV?'; and unit A9 'examines the need to invent new words and the way in which such words can come to be regarded as 'jargon'.'[3]
3. *Participation.* Teachers have found contrastive analysis based on the following five categories useful in exploring ideas of appropriateness in style: frozen, formal, consultative, informal, intimate. It can be illuminating to take a statement expressed, say, in a formal mode and to try to 'translate' it into the other four modes. It is more illuminating to consider examples where little or no effective translation is possible. It is even more valuable, however, in dealing with such examples, to draw the effective 'informal' and 'intimate' utterances from the students' own dialects and to contrast them even-handedly with examples of 'frozen' and 'formal'. This serious and unpatronizing exploration of the students' personal use of language need not mean that the importance of 'standard' English is underplayed. A most compelling example of this assertion, and of the methods of contrastive analysis of dialects, is provided by the BBC series, *The University of Brixton*, for recent West Indian immigrants.

    . . . Of JA talk we proud as hell,
    But we need English talk as well.
    Two forms of language are demanded:
    At home Jamaican; in England, Standard . . .

[2] J. Pearce. 'Work Related Questions'. *The Use of English.* June 1973.
[3] Doughty, Pearce and Thornton. *Language in Use.* Arnold, 1971.

Combined science — a double O-level subject

Too much specialization and premature segregation of pupils into arts and science groups have long been seen as weaknesses in secondary education. This article describes a recent development in the examination of science candidates at O-level.

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John Cook is headmaster of Christ College, Brecon, and was formerly senior science master at Haileybury, Hertford

Most schools introduce some specialization into their O-level courses and the science subjects are often the chief victims. If our schools are to claim that one purpose of the O-level course is to give their pupils the broadest possible experience of the academic spectrum, then physics *and* chemistry *and* biology should *all* be taught to *every* pupil until the end of the O-level year. This view is supported by the policy statement of the Association for Science Education *Science and General Education 1971* which declared, 'Pupils below the ages of 15 and 16 should not be segregated into 'arts' and 'science' groups: neither should there be too much specialization within the science subjects available as this could lead to the exclusion of a study of biology or chemistry or physics'.

The need for specialization is partly attributed to the examinations available, and it has been an anomaly of O-level science examinations that candidates could gain three passes or one pass after studying physics, chemistry and biology equally, but not two passes. Most examination boards provide O-level papers in physics, chemistry, biology, physics-with-chemistry (or physical science) and general science. So any pupil who studies the three sciences in *equal* depth must take either physics, chemistry and biology as three separate subjects or the single subject general science. In order to do justice to the full O-level syllabuses of the three separate subjects, the pupils will almost certainly need to specialize in science, at least during their O-level year. Such specialization is inevitably at the expense of arts subjects and causes premature commitment to A-levels in science. By contrast, those who have followed the largely qualitative general science syllabus will probably find this a poor introduction to any A-level science course and this frequently leads to early commitment to arts A-levels. Combined science was originally developed at Haileybury and seeks to fill the need for a middle way.

The main purpose in designing the combined science course was to reduce specialization by making it possible for all pupils

to study physics, chemistry and biology in reasonable depth to the end of their O-level year and then gain fair credit by a *double* O-level pass. Without specialization in the fifth form decisions about 'arts' or 'science' or even between 'mathematics or biology at A-level' no longer have to be made at an early age when the pupil has had only a brief encounter with the subjects concerned. Such decisions, which can so affect a pupil's whole career, can then be made as late as possible in his school life.

It is always difficult to find an appropriate name for a new course and before 'combined' science had been selected we considered such adjectives as amalgamated, blended, concordant, comprehensive, coordinated, double, merged, united and even Hornby—suggested by a colleague who, being a model railway enthusiast, felt this to be an appropriate name for any subject giving a Double-O. The name combined science should not lead to confusion with the Nuffield combined science course because the latter is not an O-level subject, being designed for a different age group, the 11-13-year-olds.

Any O-level course should meet the dual objectives of giving a general grounding to those for whom the final examination will be a terminal one and at the same time forming a sound basis for those who will study the subject beyond O-level. So the combined science course has to provide an understanding of scientific method and philosophy and an insight into the relevance of science to modern life while making sure that the future scientist will be able to start on already overcrowded A-level syllabuses without the severe handicap of insufficient basic knowledge. The initial combined science syllabus was prepared to meet the above aims with the help of ideas from some thirty schools and, in the light of teaching experience, is at present being modified. The course has been designed to be covered in nine forty-minute periods per week for two years or six periods per week for three years. The periods are divided equally between physics, chemistry and biology.

In an ideal system combined science would be taught by one person who would be equally qualified in the three sciences. Such teachers are, however, very rare indeed. The quality of teaching from three teachers each taking his own speciality is likely to be far higher than that given by one teacher taking all three subjects. A specialist in any one branch will generally be struggling with at least one, if not both, of the other component subjects. Only the specialist will be able to give convincing answers to questions which go well beyond the syllabus or be able to generate the genuine enthusiasm for the subject which ensures an adequate supply of really able pupils for A-level science courses. Until our universities and colleges of education produce many more teachers who are equally qualified in physics, chemistry and biology, it seems wisest that the teaching of the three sciences should remain largely the preserve of the subject specialists. For

this reason the syllabus for combined science has deliberately been presented under the headings of the three component subjects.

The Oxford and Cambridge Schools Examination Board agreed to examine combined science under a regulation which allows schools to submit alternative syllabuses. The papers are composed from questions submitted by schools entering candidates and then revised by the Board to ensure that the papers are of O-level standard. The decisions on the pass marks for combined science are made by the Board's O-level Awarders. As combined science is an alternative to the three full science O-levels, it cannot be taken in conjunction with separate subject physics, chemistry or biology.

The examination consists of four papers. Paper I carries 120 marks and has thirty short-answer questions set on the whole syllabus to be answered in two hours. Papers II (physics), III (chemistry) and IV (biology) each require candidates to answer four longer questions out of seven in one and a half hours. Each of these papers carries a maximum of 80 marks. Double subject (Combined Science I and Combined Science II) or single subject (Combined Science I only) passes are awarded on the *total* mark gained by the candidate in the whole examination. The grade for Combined Science I is based on the candidate's total mark for Paper I and the best of the three other papers. The grade for Combined Science II is based on the total mark for the other two of papers II, III and IV.

The first O-level examination was set in the summer of 1972 and taken by 167 candidates from Haileybury and Rugby School. In 1973 there were 185 candidates from four schools. Last summer there were 423 candidates from nine schools. For this year's examination, there is a provisional entry of about 1000 candidates from some twenty schools, including entries from two schools which do not normally offer the papers of the Oxford and Cambridge Schools Examination Board.

The Standing Conference on University Entrance Requirements has welcomed combined science as a method of reducing pre-O-level specialization. The double pass has been accepted by universities as suitable for course requirements. For example, an engineering department asking for an O-level chemistry pass will accept a double pass in combined science as satisfying this requirement. The single pass will rank as equivalent to a pass in general science. The Services and many professional bodies have also accepted combined science passes as suitable for their entry requirements.

At Haileybury, the whole of the fifth form—about 120 boys—takes combined science and it is interesting to see the effect which this new arrangement has had on the boys. Before combined science was introduced, the top two sets took separate subject physics and chemistry at O-level and almost all candidates passed. The remaining four sets offered physics-with-chemistry

and there were generally about 25 boys who failed to pass this subject, many of them having stopped trying during their O-level year. The introduction of combined science had the most marked effect on the weakest candidates. These boys soon realized that they could aim for a double pass and, if they failed, still gain a single pass for their O-level science studies. The work rate of the lowest sets increased considerably and during the last three years an average of only seven candidates have failed to gain any science reward at O-level. Biology used to be offered as an alternative to history and about 40 per cent of the boys studied it to O-level. With combined science ensuring that all boys study biology to the end of their fifth form year, the number of boys wishing to take biology at A-level has increased significantly. However, despite the pleasing effect which combined science has had on O-level teaching, it would fail if the stronger candidates did not do themselves justice at A-level. Those who offered the first combined science papers took their A-levels last summer and it was encouraging that they did not appear to have suffered from doing biology at the expense of some physics and chemistry in their O-level science course.

The immediate future of combined science is reasonably assured because of the number of schools which now teach the course. It is felt that the main educational advantage has been that it enables all fourth and fifth formers to spend a significant proportion of their time in the science laboratories and studying *each* of the three sciences in reasonable depth. Thus decisions about A-level specializations need not be taken until the end of their O-level year and can then be made with knowledge gained from studying the broadest possible range of subjects for as long as possible.

Trends 1975/2

Leave the governors alone

TRENDS No. 36 contained an article by Anne Corbett on governors and managers. In response to its plea for change, a headmaster argues that power is already so diffused in a modern secondary school that strengthening the authority of governing bodies would be a reactionary step.

R. T. SPOONER

R. T. Spooner is headmaster of Foxwood School, Leeds

When I shared a platform with Mrs. Anne Corbett at the 1974 North of England Conference she was able to make one thing clear. She saw governors as 'non-professional watch-dogs' and heads as 'the professionals being watched'. And she made it obvious that they were not to be watched in order to be under-

stood and interpreted to the populace, but so that they could be controlled and put in their places. For her concern then was to curb the autocratic head who was unsackable, accountable to no-one and arrogant to boot.

Now, although I am comforted to see that her basic views remain unaltered, she has attempted to make her argument more subtle at the expense, one feels, of making it more confused. But it remains a theoretic argument of interest, no doubt, in academic terms, but curiously unrelated to life as it is really lived and delightfully unconcerned with the radical changes that have taken place in the education scene in the last twenty years. For this all-powerful head, if not entirely a figment of her imagination, could have been a head only of a small school, probably a grammar school, and certainly one running smoothly along the tram-lines of orthodoxy and therefore one requiring no curriculum change, little modification of its rules, regulations and ethos, all of which no doubt were sanctified by time; one to which the parents were grateful that their offspring had ever been admitted, and one which was blissfully unaware of areas of failure on such a scale that experimentation is welcome if only inasmuch as it affords unexpected hope.

Such a head might well be all-powerful in his gloriously restricted world. He might on rare occasions muster all his energy together to expel a boy. He might insist on vetting the prefect list and perhaps vetoing the school play. Possibly, to prove he's a liberal at heart, without any consultation at all, he may abandon the rule about wearing the school cap some years after the boys have abandoned it themselves, but apart from such occasional and arbitrary acts, what else is there for him to be autocratic about? He reports his end-product, the exam results, to his governors and both patronizes them and defers to them on Speech night and at the Old Boys' match, and no doubt finds time to be amused by the progressive ideas of the occasional suburban housewife with time on her hands and a social mission.

And the governors' role is also comfortably well-defined and orthodox. It is to assure themselves that all is still well, that the school flag keeps flying and that the head is afforded all the support he needs in his dealings with the local education authority.

Indeed, it is no doubt to the governors that he turns when threatened by reorganization and it will be they who keep his hopes alive, only to prove as powerless as his tame Parent Teacher Association (if he has one) when his school goes comprehensive and he finds at a stroke his responsibilities quadrupled and his salary more modestly increased.

Mrs. Corbett seems blissfully unaware of what has happened for the most part to this type of head who has undergone this type of experience. Most of them began to recognize the limitations to their power, for in going comprehensive they were moving into a fundamentally consumer world. They found that the

pupils would no longer accept the old orthodoxies. Their disciplinary methods no longer worked, the ethos they had projected, the curriculum they had thought sacrosanct, the uniform they had thought suitable they suddenly found a substantial minority rejected out of hand or appeared to find comic. Worse still, staff were no longer queueing up to get into the school and, when there, were no longer so unquestioning nor, it appeared, so dependent on them for promotion.

They have been forced to make their adjustments and with varying degrees of speed are discovering that it is possible to run a large complex comprehensive school only in non-authoritarian terms. As, clearly, the curriculum must be one that appeals to the pupils and meets their needs, they must have a free choice of subjects or courses. Curriculum change must involve the active participation of staff. It is they who must produce the Mode 3 syllabuses and be able to work them. The price they will, in the long run, exact is participation in every aspect of school management. The disciplinary policy will become inextricably interwoven with a complicated pastoral care and support teaching pattern, each aspect of the curriculum will be discussed and talked over in meeting after meeting, it will be seen to be expedient to consult parents and pupils fully and the whole complex organism will become based on goodwill and consent.

Once this has happened, and the process has about it in the long run an element of inevitability, what role is left to the governing body? Not surely an authoritarian one. When the head has abandoned his authoritarian position because the participation and involvement of all interested parties produces better decisions, it would be absurd to substitute an authoritarian board of governors whose brief would be to dictate the curriculum. Indeed, once one looks at the reality of the situation Mrs. Corbett's suggestion that the school should educate its governors by having a different group of staff to explain their work at the beginning of each governors' meeting is seen to be as unnecessary as her other claim that the governors could then find a role in interpreting the school to the community when there is a task force of 2000 - 3000 parents better fitted to do this.

So the role left to the governors is very much the same role as it always was. It is not to look inwards and seek to dictate the policies of the school, but outward and represent the needs of the school to the education committee. And if it is to do this effectively it will not be strengthened by teacher representatives who will be in the invidious position of having a personal axe to grind and being inhibited by decorum from grinding it, or pupils who, if they are to be trained in democracy, need to be involved in a school council with real detailed powers, and not prematurely disenchanted by the sort of elusive influence which at the most, when things are going reasonably well, governors

should seek to wield. Nor is it an appropriate place for parents of pupils in the school whose identification is likely to be too personalized. It is essentially a place for elected representatives who can act as a bridge between the head and the committee and need some direct contacts with the educational scene if they are to make wise decisions. Now there is another reason why local councillors should remain the backbone of governing bodies. It must be accepted that there is such a thing as accountability. However much participation by parents, pupils and staff there may be in the running of a large school, and however important it may be that it is accountable to itself—and where professional standards are high this is the best form of accountability and the most practical—yet in theory no school should be allowed to become a law unto itself. It must recognize that it is accountable to the elected representatives of the community, and hence to the education committee. Their chief officer must be able to call a head to account if for some reason the school is sadly failing or if it is taking directions which do not accord with the democratically expressed will of the electorate; and if, as may happen on rare occasions, an irreconcilable dispute occurs this ought to be settled by an impartial body of governors and not by people heavily identified with the day-to-day running of the establishment.

There is, of course, one recognizes, a sad shortage of mature citizens willing to participate in the relatively inglorious chores of local government, prepared to lend their voice to what must in the end be consensus decisions, undramatic except in times of crisis, and unrewarding to the ego. But this does not alter the fact that the educational world of today needs a theoretic power structure, but flourishes only when these powers are rarely exercised and for practical purposes voluntarily abdicated and disseminated so widely that every one participating in what is after all nothing if it isn't a human service, feels that he has a part to play which is valued and valuable.

Newham's special interest centres for physical education

In the early '60s, urged on by an enthusiastic club table tennis player and coach, the West Ham Youth Service established an evening centre to provide coaching in table tennis for young school leavers and members of the borough's youth clubs. This centre has provided opportunities for young players to improve their game and to progress to county, national

and international competitions. At first all the players were boys, but later girls were admitted. The age range was narrow in the early days, but now junior school children take part and the present age range is from 10 to 23 years. The centre, now open for classes three evenings each week, is located in the large hall of a former secondary school which is equipped with special lighting.

The second of Newham's initiatives was the establishment of a judo centre in 1965. A school was selected and its stock of equipment increased to provide for the judo centre activities. The centre was staffed by the qualified judo instructors who were already employed as peripatetic instructors in the schools. Since 1965 other centres of physical education have developed as the demand has grown and there are now ten in different parts of the borough. In addition to table tennis, the centres now provide group and individual tuition in athletics, badminton, basketball, canoe-building, dance, fencing, gymnastics, judo and netball. The Newham inspectors of physical education have developed the centres in cooperation with the youth service. The centres are financed from money provided for schools and the youth service. All are located in premises owned and administered by the local education authority. Students in full-time education pay a fee of 25p per term and others pay 50p per term upon enrolment at a centre.

Most centre activities take place in school sports halls or gymnasia, but there are exceptions. The athletics special interest centre is housed at the borough's athletics stadium where an adjacent secondary school's sports hall and the hall of a nearby primary school are used for winter training. The canoe-building centre has the exclusive use of an annexe building in the playground of a former secondary school. The dancing takes place in school assembly halls. All centres open during the early evening, but the athletics centre is also open on Sunday mornings and the canoe centre can be used at other times.

Students are recruited from the schools and youth clubs which are supplied with information about the centres. Teaching and supervisory staff identify promising and interested performers and invite them to join the appropriate centre. Except for gymnastics there is no entrance test for any centre, although for obvious reasons a good standard of performance or good potential must be evident. Most participants are within the secondary school age range, but age restrictions do not prevent primary school children of outstanding promise from taking part in athletics, badminton, dance, gymnastics, netball or table tennis. In some cases, such as judo, badminton, dancing and table tennis, students are encouraged to join an adult class, usually held in the same premises as the centre for that particular activity and where the same tutors operate.

All the centres are staffed by instructors or teachers who have appropriate qualifications and experience. There are part-time instructors for table tennis, netball and canoe-building. A full-time peripatetic dance teacher is responsible for the dance centre. All other staff are either full-time salaried instructors or Newham full-time teachers, paid on a sessional basis for their work at the centres. The salaried instructors work in the schools during the day and in the centres during the evenings. Some have given long service to the authority.

More than 700 boys and girls of school and immediate post-school age attend the twenty-six classes in various activities. Newham's centres are making provision for gifted young performers and other young people who wish to make progress with their physical skills and to pursue their interests in and out of school time in competitive and non-competitive and creative activities. The centres provide satisfaction for the specially gifted without denying proper opportunities for others and they bring some hundreds of young people under the influence of Newham teachers.

The Anthony Gell School
Wirksworth
Derbyshire DE4 4DX

Dear Sir,

I am a regular subscriber to TRENDS IN EDUCATION and would like you to know how much I enjoyed the October edition. May I comment on just one point which I find annoying. In the book reviews the contributors appear disguised as initials, which I am sure is helpful to those in the know but is of no advantage to me. I would be very interested to know the names of the reviewers and I would have thought it was a simple matter to ensure that they are included.

Yours faithfully,

ROY PEARCE

Mr. Pearce will be pleased to see that we have acted on his suggestion. From now on the names of book reviewers will be published in full.—Editor.

Blackpool College of Technology and Art
Palatine Road
Blackpool FY2 0HB

Dear Sir,

I would take issue with some of the points made in 'Talking Points' in the December issue of TRENDS IN EDUCATION.

As a teacher and a sociologist, I am appalled by the statement in paragraph three referring to children in 'a good primary school' that 'its absence of stress and competition' contributes materially to the healthy growth of children.

First, there is no mention of the criterion used to define 'a good primary school'. I have always believed this to be so loose a generalization as, almost, to defy definition. I would suggest that such a school could only be described as that which best meets the needs of the child *in that catchment area.* Even such a definition must, because there is a multiplicity of considerations involved, be little more than a generalization.

How any situation involving children, especially young children, can be described as free from competition is quite beyond me. In some form or other, competition is so basic and natural an instinct as to be present in all of us. That it is expressed in a great variety of ways is beyond dispute. Similarly where there is competition, there must be stress areas among the competitors

and the exhibited signs of this stress can be as widely divergent as between the braggart and bully, and the voluntary isolate.

Simple observation of children at play, long before school educative processes begin, will amply prove these points.

As basic considerations, may I quote the competition for attention evident in even very young children—often this is carried on throughout adult life—and the almost inevitable emergence of a leader in any play or peer group. Such leadership does not just happen. It can only be the result of competition within the group, and that leadership may be wholly acceptable to the group or only partly so.

I am not happy, either, about the casual way that family responsibility is brushed aside in the article as against the alleged societal failures which are detailed. I am aware that it is the fashion today to blame all the ills of the world on *them*, whoever 'them' may be, but there remain some people who are not prepared to allow the abrogation of parental responsibility in this irresponsible manner. It must be said, and said clearly, that primary responsibility for the child rests with the parents. They are responsible for the child being brought into the world and they are the first authoritative source with whom the child comes into contact. This contact is, usually, of five years' duration before the child ever comes into contact with the schools. Inasmuch as these are the important, formative years in the development of the child, the importance of this foundation period cannot be overstressed.

Yours faithfully,

P. TURNER
(Information Officer)

Colsterworth C.E. School
Grantham
Lincolnshire

Dear Sir,

In the issue of TRENDS IN EDUCATION, Number 36 of December 1974, 'Talking Points' on behaviour problems provokes me to take issue with the writer who says, 'Behaviour problems still lack precise definition', but I agree that 'the causes of emotional and behaviour disorders are rarely simple'.

It is obvious that there is much amiss in the behaviour of school children today. In conversation with my colleagues in the teaching profession, I find that there is general agreement that children are not as easily manageable and amenable to orderly discipline as they used to be; that they are disorientated and lack ability to concentrate and attend to learning.

I believe that most children need some kind of general help in achieving desirable standards of behaviour. Many children are unable to sit still, without fidgeting, for more than a few seconds. Many children are so tense that they cannot hold a

crayon or pencil properly. Many children are so tense that they cannot learn efficiently so that their personal potentials are not being realized.

I believe that precise definition of behaviour disorders is now available to the educational world.

In his Nobel Prize Lecture, *Etiology and stress diseases*, Professor N. Tinbergen says he has evidence that 'normal' children revert to bouts of autistic behaviour. He says 'It is not informative to study variation of behaviour unless we know beforehand the norm from which the variants depart'. He says that stress disease is on the increase and many children must be regarded as semi-autistic; seriously at risk.

In his lecture Professor Tinbergen refers to his experience of the Alexander Technique as a means of reducing stress.

I believe that the Alexander Technique provides the means of that 'precise definition of behaviour disorders', which is so sorely needed in the education of children.

Yours faithfully,

P. G. ISAAC

ATV Network Limited
ATV Centre
Birmingham B12JP

Dear Sir,

I was very interested in Ellen Mee's article on *Fifty years of school broadcasting and the changing curricula of primary schools: 1924-74*, but was dismayed to find that she made no mention of ITV. In fact, of course, half the school TV output is provided by independent television, and it was ITV which pioneered some of the subjects actually mentioned by Miss Mee such as junior school mathematics and sex education. It is ITV which is currently working with curriculum development bodies like the Schools Council in such areas as integrated studies and health education. Other subject areas currently covered by ITV school programmes include physics, chemistry, biology, the history of science, drama, English, social studies, history, geography, religious education, personal relationships, French, environmental studies, studies of the mass media, rural studies, music, mathematics, and even outdoor recreation. There are also special programmes for slow learners.

By failing to take into account these ITV series, Miss Mee has produced some strange generalizations as when she states that 'over half the output of school television is already in colour'. What she really means is 'over three quarters', because all the ITV output is in colour. Similarly, it is not true to suggest that there is only one educational TV series for pre-school children. There are, in fact, five.

I appreciate Miss Mee was mainly concerned with radio and no-one would wish to belittle her tribute to the BBC—but to

write about school television and ignore half the output is surely to give rather an odd picture of what is going on.

Yours sincerely,

PHILIP GROSSET
Head of Educational Broadcasting

University of London Institute of Education
Malet Street
London WC1E 7HS

Dear Sir,

I have just seen the review of *The government and management of schools* in your October issue. May I make one or two corrections of fact?

Our research was *not* sponsored for the Royal Commission on Local Government in England and Wales: it was financed by DES and had already started when the Royal Commission asked if we could submit some evidence—which we did in our earlier publication (Research Study No. 6 in the Royal Commission's Report).

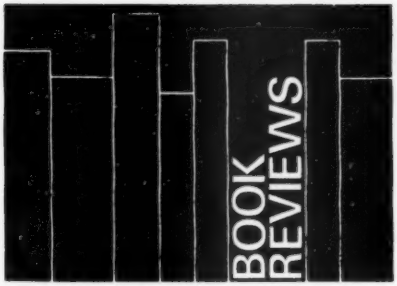
Secondly, in our final chapter we most definitely did try to look ahead, even though I readily admit that were the study being planned or carried out now it would ask some very different questions.

Finally, I don't know who J. G. Howells is, but he should not be allowed to steal such credit or blame as there is in your review from the co-author, who is

Yours faithfully,

D. A. HOWELL

● The editors reserve the right to shorten letters published in TRENDS. Letters intended for publication should be addressed to the executive editor.



Post-compulsory education: a new analysis in Western Europe

Edmund J. King, Christine H. Moor, and Jennifer A. Mundy

Sage Publications £6·00

An important piece of research is here presented in the form of a readable book which conveys the results of a detailed study of the education provided for those in the 16 to 19 age range in France, Germany, Italy, Sweden and England. Students of comparative education will find that the five chapters on the educational systems in these countries give concise and accurate information which is not only up to date but forms some idea of the changes which are taking place.

The main purpose of the research, undertaken by Dr. King's unit with a grant from the Social Science Research Council, was to seek the reasons that lead more and more young people to remain in full-time education after the compulsory school-leaving age, thereby providing some guidance for those who have the onerous responsibility of continuing to find the necessary resources. During the operation, the work focused on two aspects of 'newness', the newness of the educational provision as shown by the structure and curricula, and the newness of the student population itself.

Dr. King's team is fully aware of the importance of developments in new curricula and new teacher-student relationships for the increasing proportion of those remaining within the educational system yet not aiming to proceed to higher education. It is also very much alive to the problems facing those who follow restricted academic courses and then find themselves unable to change direction. Vocational courses and training institutions have not been omitted, and although in a single book about a single research exercise it is impossible to cover an example of each type of school or training institute in several countries, Dr. King is well aware of the need to consider the whole of the 16 to 19 group as one. Of the UK he says ' . . . it is astonishing how some LEAs still persist in regarding schools as quite separate from further education—and, indeed, segregating school from school at a time when the students' out-of-school contacts are more realistic'.

The social science student and the statistician could no doubt spend a considerable time in a close study of the many tables that are set out, but the authors have done their analyses and provided readable conclusions. Even though, as evidenced by the number of individual quotations, student opinion cannot be wholly forced into tabular form, we learn from the opinions of teachers and students that both seem agreed on ranking 'the wish for qualifications of use in jobs as being the most important reason for students deciding to stay on in full-time education'.

The chapters devoted to the analysis of the sociological aspects make interesting reading and point to the importance — an almost terrifying importance — of that section in our complex systems classed as 'counselling and guidance'.

G. W. MILBURN

Up to the mark

C. M. L. Miller and M. Parlett

Society for Research into Higher Education £2·20

This is a report of a small-scale study of the examination game recently carried out over a two-year period in three departments of Edinburgh Uni-

versity. The report is written for university staff and students but teachers in schools will find many of the arguments familiar. Clearly the examination of examinations is taking place at all levels and it is interesting to have set down some of the strengths and weaknesses of the project, multiple choice tests, question choice, time limit exams, orals, continuous assessment, and so on, as seen in the university context. Many of the statements made transfer to the school situation: when discussing external and internal marking/setting of papers, the authors state 'one can argue that someone with a close up knowledge of an individual is better able to make a judgement concerning his endeavours; or alternatively one can question this, on the grounds that personal feelings are likely to cloud a dispassionate judgement'. Also discussed are the need for examinations, aggregation of marks, reliability of marking, and stress caused by examinations.

The report is descriptive and qualitative rather than statistical and a few short case-studies are included. Extensive interviews with forty-nine staff and fifty-eight students provided the main body of data for the report. Each section starts with a summary of contents and references for follow-up work are given.

One section describes what one group of students thought to be a need to be perceptive and receptive to 'cues' sent out by staff concerning examination topics. Three student groups are described: cue-conscious, cue-seekers and cue-deaf. Readers may wish to identify themselves with one of these types.

The report is not a comprehensive treatment of assessment but is written as a contribution to the discussion of this topic. If it is widely read by teachers at this time when changes in examinations are being considered, then it will help to ensure that their discussions are 'up to the mark'.

G. BENFIELD

Inside a curriculum project

M. D. Shipman with D. Bolam and D. Jenkins

Methuen £3·25 (£1·75 in paperback)

The Keele Integrated Studies Project was financed by the Schools Council from 1968 to 1972. Between 1969 and 1972 the working of the project—and particularly its impact on and the relationship with participating schools—was studied by a sociologist, the principal author of this book. No attempt was made to evaluate Integrated Studies in the classroom or to discuss Integrated Studies in the context of curriculum theory. The research was basically aimed at providing material which might assist in the planning of future curriculum development. The result is a fascinating 'inside story' of one of the Schools Council's first-phase projects.

The Keele Project showed some exceptional features. It was very much a local project confined to a fairly small geographical area. It was also a 'grass roots' project deliberately setting out to involve class teachers directly in its work and making use of locally seconded teacher coordinators. Finally it was concerned with an area of the curriculum rather than with an individual subject.

The most significant aspect of this study is its emphasis on the need to define the context of curriculum development. The complexity of the process is also fully examined. 'Curriculum change does not proceed through a clear cycle, from a statement of objectives to an evaluation of the learning strategies used. It is a process of bargaining, negotiating and horsetrading'. The author's final suggestion is that effective curriculum development may lie in bringing closer together the multifarious traders of the curriculum market.

M. J. F. WYNN

Craft education: presentation of design

T. Pettit

Arnold £2·50

The writer explains in the preface an important change that has taken place in craft education; that the pupil as in other teaching is expected now to do more for himself than was the case a few years ago. The traditional close instruction methods, with little pupil intellectual involvements, are giving way to decision-making, problem-solving techniques—the design approach. The writer's enthusiasm for this method of teaching, that pupils should design their own work, is made clear and he recommends that it should be used from the start, even with the youngest pupils. But to work in this way it is vital that the pupil should be able to express himself clearly in a visual form, usually on paper, to make possible sensible discussion with his teacher, and presumably also to enable him to clarify his own thinking. The purpose of the book is to help the pupils to acquire this skill and technique, and the writer has attempted to do this mainly by reproducing examples of his own work and that of his pupils and also work of professional designers. Straightforward drawing techniques are well covered and a short though important chapter on design and the community will go some way towards stimulating pupils' design awareness as regards the world outside the workshop.

This could be a very useful reference book for young designers, and many teachers will benefit from so detailed an account of how a colleague thinks on these lines. I feel certain the writer did not intend that the book should be used for other than reference purposes. It would be sad indeed if a boy who wished to make, say, a stand for his pencils were to be directed to page 33 and told to copy that; to direct him to page 32 to learn how such a design problem, however simple, could be tackled is a different matter, and I would think closer to the writer's intention.

A. WIGGLESWORTH

The objective interpretation of test performance

Alan S. Wilmott and Diana E. Fowles

NFER £2·20

The search for new procedures in educational measurement received new momentum when CSE was introduced over ten years ago. This slim volume, the outcome of work sponsored by the Schools Council, sets out to explain how the ideas of Georg Rasch might be exploited. The technique requires some fundamental changes in our way of thinking about attainment testing, in particular our notions about objectivity. In this context objectivity is defined by reference to two criteria: that the measurements are independent of the sample of test items selected and are also independent of the persons selected for testing. It would follow that measurements could be made using any of a number of batches of items from an item bank, using differently selected groups of persons not necessarily representative of a population. To achieve this it is necessary to establish that the items chosen had been calibrated to fit the Rasch model. One limiting characteristic of the items at present is that they must be capable of either a right or wrong (true/false) response. The authors provide an account of how the model works in relation to a 40-item test of English comprehension taken from a recent CSE examination.

This is essentially a report about ongoing research for those with some familiarity with testing methods. Its purpose is clearly to stimulate discussion amongst research workers.

E. L. SEWELL

Relationships in adolescence

John C. Coleman

Routledge and Kegan Paul £4·75

This book describes a study into three major aspects of adolescence-relations with parents, with peers and with self. From an analysis of the responses of 739 pupils aged 11 to 17 to a sentence completion test and picture thematic test Coleman puts together a focal model of adolescent development. He suggests that during these years these three main areas become foci of tension, not simultaneously as is often believed, but at different times for girls as compared to boys and with individual variation. For girls, conflicts with parents appear to begin and end earlier than for boys and often to arise from the fear that their parents will prevent them from being themselves. For boys the tensions with their parents arise more usually from their being prevented from doing what they want to do. Girls seem to find rejection by a small group more worrying than do boys. They are also more likely to identify with an individual who is rejected by a large group than are boys, who tend to follow the majority. However, in the search for a satisfactory self-image there appear to be few sex differences, but an increasing concern over identity problems with age. These results suggest that the view of adolescence as a time of storm and stress should possibly be modified but, on the evidence given, the conclusions should be treated with reserve particularly because the sample of adolescence studied was so highly selected and unrepresentative.

This account is clearly written and includes some useful summaries of recent writing, but at £4·75 for 216 pages it is expensive for what it contains.

M. J. TYERMAN

New movements in the study and teaching of biology

Cyril Selmes (editor)

Morris Temple Smith £3·00

This will be a useful addition to the biology teacher's source of ideas. It provides a realistic set of aims, objectives and actual schemes of work, with the real world very much in mind.

In his introduction, Cyril Selmes, writing of new developments such as Biological Sciences, Curriculum Study and Nuffield Biology, reminds us that only the minority of pupils take the special examinations which are designed to assist their work in these (Nuffield) courses. 'It must therefore be assumed', he continues, 'that the vast majority of pupils do not benefit fully from these changes'. There is no need to be so pessimistic. A period of consolidation which Colin Stoneman calls for as a sequel to the decade or so of rapid change is already with us. With new and reorganized schools and teachers taking a fresh look at schemes of work and the goals, method and assessment of teaching and learning there is much that is taking place. A new generation of text books and other teaching and learning aids, including examinations, have taken us already beyond 'Nuffield' Biology and this is as it should be. The trouble is that few teachers write down for readers outside their schools a statement of changes which they are making. If there is disappointment and apparent lack of interest in public curriculum development in biology, this is because Nuffield Biology as a package deal was not quite what teachers wanted and they are finding their own ways forward.

Part one of this book contains chapters on recent developments in biological research: their inevitable brevity is compensated for by useful lists of references for teachers' study. The next section on 'new approaches and techniques' put biology firmly in

the context of the whole curriculum and provides a great deal of discussion material for departmental staff meetings and seminars of all kinds.

A chapter on the use of computers could have been usefully added. The last section provides some useful check lists for teachers designing or reshaping their work in biology and this section could have been improved by the addition of a chapter on the problems of implementing central curriculum development material in a local setting. The book also has very little to say about work in colleges and departments of education, but readers will find a great deal of practical value for the class room from many of these authors, who took part in the early work in curriculum development in biology in this country. C. H. SELBY

The learning society

Torsten Husén

Methuen £4·00

Curriculum development

P. H. Taylor and M. Johnson

NFER £2·90

These two volumes are respectively a collection of essays by the distinguished Swedish educationist Torsten Husén and a collection of chapters by a variety of authors on the machinery which might lead to curriculum development in their various countries. The former deals with educational problems from the point of view of a member of one of the more 'developed' European societies who also has wide knowledge of many educational systems; the latter shows how the phrase 'curriculum developments' can mean a number of things depending on the attitudes of the society and educational systems to which the authors refer. Each book is informative and Professor Husén's is also stimulating, revealing the thoughts and reactions of an enquiring mind always ready to subject the existing state of affairs to scrutiny and not afraid to look into the future. The twelve chapters in *Curriculum development* inevitably differ in style and approach and are descriptive of the 'state of play' in a number of countries. Taken together the books offer many interesting observations on developments in education. It may be argued that neither is quite close enough to the actual teaching situation, in most cases still the classroom, and this is highlighted in the chapter on the Federal Republic of Germany. 'Conspicuously, a relatively high number of project collaborators (about 33 per cent) had only been associated with a university and had no practical school experience. In addition, the results revealed a great lack of prior theoretical and practical knowledge of curriculum development'.

All countries have their individual characteristics. Canada has ten Ministers of Education. The United Kingdom and Denmark have decentralized systems of education. Other countries exercise central control. The size of the United States is a problem in itself. Perhaps it is the chapter on curriculum development in England that is closest to reality. 'The teacher is the major figure. But the way in which he changes what he does day by day (which amounts to a crude and simple but perhaps accurate definition of curriculum development) depends on his own experience and on what other people will expect of him.' Inevitably there are repetitions in this book, but it gives an interesting if occasionally over-theoretical picture of changes that often take a long time to percolate through a system.

While Professor Husén deals with broad issues and poses provocative questions, *Curriculum development* describes ways in which change can be brought about if all projects were followed through. It also shows how difficult it is to achieve often admirable goals. A chapter on France is conspicuous by its absence.

R. C. WILLIAMS

Mathematics: society and curricula

H. B. Griffiths and A. G. Howson

Cambridge University Press £7·50 (£3·50 paperback)

This book arose from a course in mathematical curriculum studies given by the authors at Southampton univerity. It includes a discussion of the history of the teaching of mathematics in England with particular attention to the main education acts and reports over the last hundred years, followed by accounts of some aspects of educational administration, research, and the resources of educational technology. The mechanisms of change are described, the subject associations, the projects and the Schools Council, and there follows a section in which some aspects of elementary mathematics, especially the number system, are seen from an advanced point of view and the teaching implications reviewed. Applied mathematics receives generous consideration, and finally there is a more detailed look at examinations. It can be seen that this is a rich store of background information which one would wish the mathematics graduate entering teaching to have. Furthermore, there is perhaps no other single source to which he could go and find so much. The book could very probably become required reading in many post-graduate certificate courses.

The basic skills of lesson planning, school and classroom organization, day-to-day management and discipline are left untouched because the intending teachers were also to undertake more directly vocational studies in an education department. The matter here is supportive material handled within the department of mathematics itself, and it enhances the claim of curriculum studies in mathematics to be seen as a component of a degree course. This book makes plain the unreasonableness of attempting to concentrate all of the intending teacher's school-oriented mathematics into one post-graduate year.

Throughout, the authors emphasize social development and change, but since 1973 certain problems have become increasingly clear and fresh factors have affected the debate. The problems resulting from the reorganization of schools, changing views on expectations of achievement at the primary stage, changing fashions in interdisciplinary studies, recent criticisms of newer mathematics syllabuses as a basis for scientific and technical studies, and the feasibility studies directed towards radical changes in the examination structures at 16 and 18 all command attention; and they are social factors affecting the mathematics curricula with which the young graduate may be involved in his first appointment. Research shows that all too many of these young graduates survive in teaching for a time which is all too short. A still deeper analysis of the social forces at work may be needed if this trend is to be reversed.

The preparation of mathematics teachers can only benefit from the more specific involvement of professional mathematicians, not only in the discussion of subject matter for syllabuses but also in seeking to understand the historical and social context in which teaching takes place. To this the present book makes a most welcome contribution.

T. J. FLETCHER

Reviews in brief

What school is for

Gabriel Channan and Linda Gilchrist

Methuen £1·30

The authors, mounting their operations from the progressive camp, skirmish on two fronts—against deschoolers and against conservative academics. They want schools to be different but they want them to be there as 'host and midwife' to a culture of 'universal humanitarianism'. The book, agreeably short and vigorously written, is more explicit in its criticism of what is than in its exposition of what might be. It expresses the views of many who teach the humanities and are concerned about the human condition. The authors reject the traditional assumptions on which the teaching of those subjects have been based as irrelevant or unresponsive to the processes of social change. In their search for a new set of educational values, socially determined by their contemporaries, they seem sometimes to forget that convergent thinkers will always be with us. Some young people do have a way of getting stuck into their chosen activities, while others talk to keep their courage up. Schools are for both lots.

British qualifications:

a comprehensive guide to educational, technical, professional and academic qualifications in Britain (5th edition)

Barbara Priestley (complier)

Kogan Page £7·50

This new edition of *British Qualifications* has been considerably revised and updated to take account of the many changes in degree, diploma and certificate courses that have taken place since its last appearance. It is an indispensable guide for anyone who needs help in finding his way through the maze of degrees, diplomas, certificates, and memberships of professional associations that the educational system provides. The clear index makes the book exceptionally easy to use.

The playgroup movement

Brenda Crowe

Allen and Unwin

£4·50 (£2·35 paperback)

This book, a revision of one first published by the Pre-School Playgroups Association in 1971 and by Allen and Unwin in 1973, is required reading for anyone interested in the history and philosophy of the PPA and the day-to-day running of a playgroup. It also contains a useful book list, a film list, and the names of equipment suppliers.

Additional books received

BARKER, JOHN A., *et al.* People and resources: Teacher's guide £2·95, Breathing space £0·95, Sink or swim? £0·95, In the balance £0·95 (*Evans*).

BAX, MARTIN, and JUDY BERNAL. Your child's first five years.
(Heinemann) £2·75.

BRIDGES, S. A. Gifted children and the Millfield experiment.
(Pitman Education), £2·80
£1·80 (paperback).

BRITISH BROADCASTING CORPORATION. After fifty years—the future. Articles and speeches on the occasion of the 50th anniversary of educational broadcasting.
(BBC Publications) Free.

The BRITISH COUNCIL and the ASSOCIATION OF COMMONWEALTH UNIVERSITIES. A handbook for students from overseas and their advisers.
(Longman) £1·50 (paperback).

BURSTALL, CLARE; JAMIESON, MONIKA; COHEN, SUSAN; and HARGREAVES, MARGARET. Primary French in the balance.
(NFER) £3·75.

BYRNE, EILEEN. Planning and educational inequality: a study of the rationale of resource-allocation.
(NFER) £5·85.

CROCKER, A. C. Predicting teaching success.
(NFER) £3·00.

DEAN, JOAN. Room to learn: room outside.
(Evans) £0·80 (paperback).

DICKINSON, SUSAN (editor). Mother's help: for busy mothers and playgroup leaders.
(Fontana/Collins) £0·50 (paperback).

DOYLE, JAMES F. (editor). Educational judgments: papers in the philosophy of education. (International Library of the Philosophy of Education: General Editor R. S. PETERS).
(Routledge and Kegan Paul) £1·75 (paperback).

DUNLOP LIMITED. The science of rubber.
(Education Section, Dunlop Ltd., 10 King Street, London SW1Y 6RA)
£1·00 (paperback).

EDUCATION DEVELOPMENT CENTER, Massachussetts, U.S.A. The musical instrument recipe book.
(Penguin Education) £0·50 (paperback).

FUSSELL, DIANA and QUARMBY ANDREW. Study-service — a survey.
(International Development Research Centre, Box 8500, Ottawa, Canada K1G 3H9 $1 paperback).

GOLICK, MARGIE. Learning through card games.
(Wolfe) £2·50.

HUGHES, JOHN M. Reading and reading failures.
(Evans) £3·75.

HUSEN, TORSTEN. Project 1: Educating man for the 21st century. Vol. 9: Talent, equality and meritocracy.
(Martinus Nijhoff) 31·50 Dutch florins.

KANETI BARRY, S. M. Engineering craft studies: monitoring a new syllabus.
(NFER) £0·75.

KIDD, J. ROBY. Whilst time is burning: a report on education for development.
(International Development Research Centre, Box 8500, Ottawa, Canada K1G 3H9) $5 (paperback).

LEE, GEORGE W., and GREGOR KATZ. Sexual rights of the retarded.
(National Society for Mentally Handicapped Children) £0·15.

LEWIS, D. G. Assessment in education.
(University of London Press) £3·75,
£1·90 (paperback).

LISTER, IAN. Deschooling: a reader
(Cambridge University Press) £2·95,
£1·30 (paperback).

MACINTOSH, H. G., and SMITH, L. Towards a freer curriculum.
(University of London Press) £3·80,
£1·90 (paperback).

MANN, JOHN. Learning to be: the education of human potential.
(Collier-Macmillan) £1·95.

MARLAND, MICHAEL. The question of advertising.
(Chatto and Windus Educational) £1·50.

NICOLSON, DOREEN, and WILLIAMS, GLENDA. Word games for the teaching of reading.
(Pitman Education) £3·00.
£1·80 (paperback).

NUTTALL, D. L.; BACKHOUSE, J. K.; and WILLMOTT, A. S. Comparability of standards between subjects (Schools Council Examinations Bulletin 29).
(Evans/Methuen Educational) £1·30.

ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT. The teacher and educational change: a new role—Vol. 1—General report.
(OECD) £5·40.

PAULSTON, ROLLAND G. Folk schools in social change: a partisan guide to the international literature.
(University Center for International Studies, University of Pittsburg.)

PAYNTER, ELIZABETH, and JOHN PAYNTER. The dance and the drum: integrated projects in music, dance and drama for schools.
(Universal Edition) £2·00.

POTEET, JAMES A. Behaviour modification: a practical guide for teachers.
(University of London Press) £1·25.

RANKEN, JANELLE. Open education: a bibliography (Library bibliography series No. 1).
(Canberra College of Advanced Education Library) Free.

REID, WILLIAM A, and WALKER, DECKER F. (editors). Case studies in curriculum change: Great Britain and the United States.
(Routledge and Kegan Paul) £5·95,
£3·75 (paperback).

RICHMOND, W. KENNETH. Education and schooling.
(Methuen) £4·20,
£2·10 (paperback).

SCHWARTZ, BERTRAND. Project 1: Educating man for the 21st century. Vol. 8: Permanent education.
(Martinus Nijhoff) 37·50 Dutch florins.

SCOTT, J. F. Comparability of grade standards at GCE A-level (Schools Council Examinations Bulletin 30).
(Evans/Methuen) £0·60 (paperback).

SOCIAL MORALITY COUNCIL. Education and drug dependence.
(Methuen Educational) £1·80,
£0·90 (paperback).

THORNTON, GEOFFREY. Language, experience and school.
(Edward Arnold) £1·50 (paperback).

WALKER, CHRISTOPHER. Teaching prereading skills.
(Ward Lock Educational) £3·25,
£1·95 (paperback).

WARWICK, DAVID. New directions in the professional training of teachers. Papers first presented at a course held at the University of Lancaster from 1st to 4th April 1974.
(University of Lancaster School of Education) £1·00.

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